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VOL. II.—41ST YEAR

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THE MEDICAL JOURNAL OF AUSTRALIA

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JAMES THOMAS RUDALL, F.R.C.S. (1828-1907): HIS LIFE, AND JOURNAL FOR THE YEAR 1858.¹

By BRYAN GANDEVIA,
Melbourne.

BIOGRAPHY.

THE nineteenth century medical scene in Australia is of peculiar interest. In an era which saw the most radical changes in medical theory and practice since the divorce of orthodox medicine from religion, it is possible to study the actions and reactions of the relatively small medical community in response to each new advance and achievement. Although the strenuous circumstances of colonial practice left little scope for original research, the true leaders of the profession may be distinguished as those with the courage, initiative and aptitude to try new methods in a relatively isolated new world. Such attributes were required no less by Gillbee and by Pugh than they were by Lister and the first anaesthetists, and for this reason alone—and there are others—they merit recognition. Among the pioneers of Australian medicine belongs James Thomas Rudall (Figure 1), who was the first, or one of the first, in Australia to operate to relieve oesophageal obstruction, to use the ophthalmoscope, to perform tracheotomy for diphtheria, to employ microscopy in clinical diagnosis, and ultimately to confine his practice to ophthal-

mology. Read in the light of a knowledge of his subsequent career, Rudall's recently discovered diary for the year 1858, the year of his arrival in Port Phillip, reveals the enthusiasm, ambition and determination required of the young immigrant bent on achieving success in a new country of vigour and independence.

Youth.

The son of James Rudall, a Royal Navy paymaster, James Thomas Rudall was born in the winter of 1828 at Crediton, in Devonshire, England. Little is known of his early life, although it may reasonably be assumed that he received a good education. It is known that he was a good scholar of French, German and possibly Swedish, while in a presidential address (1885b) he commented on the value of a knowledge of Greek and Latin to a medical man. It is probable that his first medical training was gained as an apprentice, "under the guidance of a general practitioner", for in the same address he stated: "We were taught to dress a wound, to put on a bandage, to reduce the common kinds of dislocation, to pass a catheter, to bleed, to open an abscess, and we entered on hospital practice with such-like knowledge and manual dexterity, more or less well acquired according to our opportunities."

From 1851, his "not undistinguished studies" were continued at St. Thomas's Hospital, where he obtained honours in physiology, midwifery, medicine and surgery in 1853. The clinical school of this ancient hospital, then situated near London Bridge, was recovering from a decline precipitated by the severance of the links binding it to Guy's Hospital school, but no doubt Rudall was influenced by the strong surgical tradition transmitted through Cheselden, Cline and Astley Cooper. He graduated L.S.A. and M.R.C.S. on March 7, 1854.

¹ Material used in this paper formed the basis of a paper read at a meeting of the Section of Medical History in the Victorian Branch of the British Medical Association, September 6, 1954, and part of it was included with papers submitted for the Bertram Armytage Prize, 1954.

Three weeks later, giving his address as St. Thomas's Hospital, he wrote to the Admiralty, offering his services as medical officer in the forthcoming expedition to the arctic regions. This was being fitted out to continue the search for Sir John Franklin, former Governor of Van Diemen's Land, who had been lost some years earlier in seeking to define the "north-west passage". On April 5 Rudall's appointment as "additional acting assistant surgeon" to H.M.S. *Phanix* for service in H.M.S. *Talbot* was announced. *Talbot's* log (April 10) contains the laconic entry: "In the Basin, Woolwich. Calm, westerly wind . . . Ship's company and riggers rigging ship . . . Joined, Mr. Rudall, Acting Assistant Surgeon." Under command of Sir Edward Belcher, the two ships sailed early in May. A week after leaving Stromness a gale caused extensive damage to *Talbot*, flooding the magazine and, among other things, breaking numerous champagne glasses. She had to be taken in tow, but was able to refit in Lively Harbour (Disco Island), into which they sailed on June 18. Rudall himself left an account of an incident occurring on their arrival (Rudall, 1863b), which is of interest as indicating his early interest in ophthalmology. They were received with a salute of nine guns, but "two reports were almost simultaneous, and it was evident from the confusion visible to those on board the ships that an accident had occurred". Rudall jumped into the longboat and proceeded ashore. In a room in the Governor's house he found an Eskimo with multiple wounds, including penetrating wounds of both eyes. They were treated by Rudall, not by Mr. J. R. Holman, of *Phanix*, who was in medical charge of the expedition and who had arrived on the scene first. On their way home, Rudall saw the man again (September 9, 1854): the left eye was sound, and the right, although sightless, was free of pain and irritation. His report of the case nine years later indicates that he must have kept careful notes at the time.

There is nothing of medical interest recorded in the ship's log for the entire voyage, and there is no mention of Rudall's work. Probably he was present when the "Captain and Officers visited Petrified Forest and collected numerous specimens". Although the voyage was uneventful medically, there can be no doubt that Rudall had had his fair share of excitement by the time the expedition returned to England in October, 1854.

By 1857 Rudall had resigned his commission, and on May 23 of that year he became a Fellow of the Royal College of Surgeons, England. In the London Medical Directory for 1858 he is shown as being in practice in Rochester Square, Camden Town, Northwest London, but, as recorded in the diary, on March 20, 1858, he embarked on the *Queen of the Seas* bound for Port Phillip. Part of the intervening period seems to have been spent at St. Pancras Infirmary in London, for his first paper to be published in Australia (Rudall, 1858) described the case of a man with a traumatic urethral stricture and extravasation of urine who had come under his care at that hospital in June, 1857. In evidence before the Royal Commission on Asylums for the Insane and Inebriate (1855), Rudall indicated that he had also gained some experience in the supervision of lunatics at the Infirmary. It is likely that during these years he studied diseases of the eye, but in none of his later writings is there a clue as to where he did this. An ophthalmological department, under a Mr. Mackmurdo, was in existence at St. Thomas's Hospital in 1854.

The voyage to Australia is adequately described in his own words. The journal conveys the monotony of the long sea voyage, punctuated by such interesting events as the premature labour of Mrs. Christal, the Prussian sailor developing measles instead of smallpox, the apprentice dying of acute phthisis, the kitten falling overboard, and the ladies defending themselves from any "imputation of immodesty". Despite unfavourable weather, the *Queen of the Seas* arrived in Port Phillip Bay on Friday, July 16, after almost a month longer at sea than was usual (118 days). There followed days of interviews, of presenting letters of introduction, of finding rooms, and of waiting for patients . . . "I am dreadfully tired of this lonely life. I never felt so dismal before."

Maturity.

When the diary concludes four months after his arrival, Rudall had become quite busy. This is reflected not only in his activities, but also in the brevity and hasty writing of the entries themselves. From this point on it is convenient to consider Rudall's professional career in its various aspects rather than in chronological survey. An outline of his personal life is contained in Note 34 appended to the diary.

Medico-Legal Experiences.

From the time Rudall commenced practice in the colony he appears to have been recognized as experienced in pathology as well as ophthalmology. Much of his early income was derived from coronial autopsies, which he obtained through the good offices of his friends. As a sequel to his early appearances in coroners' courts, he appeared in a number of important trials. Although by no means the most significant aspect of his professional life, Rudall's medico-legal experiences serve as an appropriate introduction to the somewhat hectic circumstances of colonial medical practice in those days. Competition was keen and professional differences were regrettably common. Inevitably in so small a community, most of these became public, many of them in the law courts, in the archives of which no small portion of colonial medical history is written.

Rudall was a witness for the defence when his first colonial medical friend, Mr. Edward Barker, was sued by Alexander Donaldson, a Melbourne Hospital patient (1869). Donaldson had developed gangrene, necessitating amputation, following the application of a new type of splint for a fracture of the patella; he alleged maltreatment. Although Barker won, the case worried the medical profession, not only because it was regarded as vexatious litigation, but because of its implications in regard to the responsibilities of honorary medical officers at public hospitals. Rudall and others demonstrated their concern in a practical—and public—manner, by establishing a fund to pay the defendant's expenses (£240), enough being left over to present him with a silver service.

Rudall was among a group of leading surgeons to appear for the defence in the case of *Turner v. Van Hemert* (1871). Van Hemert was a surgeon who, it was alleged, had failed to diagnose and to treat appropriately a fracture of the femur in an elderly female. Messrs. Beane and Crooke (for the plaintiff) gave their opinion that the diagnosis was abundantly clear. Despite certain inconsistencies in their physical signs, the jury recorded a verdict in favour of the patient. Some years later Beane (1877) referred to this case in a lecture to medical students,¹ in the course of which he drew attention to a number of diagnostic errors made by his contemporaries: "It will be in the recollection of most of you that an action for damages was brought against a medical man in our Supreme Court for not having diagnosed an intracapsular fracture of the hip joint in an old woman. The verdict was against him, and he left the country injured in fortune and broken in spirits." Once again Rudall subscribed to a fund to pay the defendant's expenses. These two unprofitable experiences serve as a reminder that in 1873 Rudall was one of the leaders in an attempt to have the fees payable to medical witnesses increased (Rudall, Letters, 1873).

Undoubtedly the most famous, or notorious, of the trials with which Rudall was concerned was *Regina v. Beane* (1866). Only certain aspects relating to his competence and integrity will be discussed here, for the trial has been considered recently in some detail by Craig (1950). Beane was charged with the murder of Mary Lewis, whose death was alleged to have followed an illegal operation. The autopsy was performed by Rudall and W. R. Pugh. As it was important to establish that the lady had been pregnant, the significance of the presence or absence of a corpus luteum was debated at length. Counsel for the defence made much of the lack of unanimity amongst the medical

¹ Entitled "On Surgical Diagnosis", the lecture included no less than fifteen further case histories in which the correct diagnosis was established only when the lecturer himself was at last consulted.

witnesses upon this matter. However, the argument was rendered highly academic by virtue of the mysterious disappearance of the ovaries in question some time after the autopsy. Nobody was able to state with any certainty whether or not a *corpus luteum* had been present. Messrs. Rudall and Pugh were placed in an invidious position, and there were some less "honourable persons" than a gentleman signing himself "Facts" in a letter to the *Medical Journal*: "Messrs. Rudall and Pugh, whose honour has never been called in question by any honourable person, declared that they never cut them off from their attachments to the uterus, and Professor Halford [to whom the organs were sent for opinion] stated that they had manifestly been cut away after the removal of the uterus and its appendages from the pelvis." It was implied (and inferred by Beaney in his vindication of himself—Beaney, 1866) that they had been purloined by Beaney or by one of his supporters. The thief was never brought to justice, but from the cloud of confusion created by this and other issues (such as whether Rudall's clumsy autopsy technique or Beaney's maladroitness surgery was responsible for a rupture of the uterus) Beaney emerged triumphant. Dr. C. E. Reeves, the organizer of Beaney's medical defence, vigorously attacked the medical evidence for the prosecution in an extraordinary book on the case (Reeves, 1866). In particular, he derided the evidence given by a "Mr. Rudall, who had studied midwifery and diseases of women on the crew of a ship sent out to seek Sir John Franklin, and whose experience must, therefore, be great . . .". Probably, in fact, Rudall's experience in this sphere was limited, for he himself wrote, over a year earlier, that he had already ceased practice in such conditions (Rudall, 1865a). Even in 1858 (Diary, September 1) he could not "bear the idea" of working at the Lying-In Hospital. Incidentally, in opposition to Professor Halford, Rudall believed that a *corpus luteum* was not necessarily indicative of pregnancy, but the existence and significance of two types had yet to be appreciated (Rudall, 1866a). Beaney's pamphlet adds little of interest concerning Rudall, except for the observation that the Coroner (Dr. Candler), who first heard the case, wished to hear only the evidence of Rudall and Pugh, "as it had been nightly prepared in concert with himself (Candler), and [with] the defects of the previous day remedied by fresh extracts from medical works".

A decade later, a more cautious Rudall declined to perform the autopsy on another of Beaney's patients, Robert Berth, whose exhumed remains formed the basis of another major medico-legal controversy (Craig, 1950).

An interesting repercussion of the trial occurred nearly three years afterwards. In 1868, in the course of one of his most vitriolic editorials, Dr. J. E. Neild asserted, *inter alia*, that the honorary staff of the Melbourne Hospital was antagonistic to the Medical School, or if not, at least uncooperative with it. Rudall, signing himself as an honorary surgeon to the hospital and as a university examiner, wrote to deny this (Rudall, 1868a; 1869b and c), adding that he was unaware of any such feeling amongst his colleagues. This evoked no comment for some months, when, in another editorial, Neild referred to it as an "offensive" denial, which it was not. To Rudall's rejoinder Neild appended a discursive footnote, seeking, somewhat irrelevantly, to justify his rather strong language throughout the editorial in question. In doing this he referred to the conspiracy during the Beaney trial, on the part of a certain section of the medical profession, to ruin Rudall's reputation "as an accomplished anatomist and pathologist". Rudall acknowledged the compliment, but continued to differ, with the result that Neild inserted another annotation, which strayed still further from the original point at issue. It concluded with his editorial regret that he had not "succeeded in reaching that high level of moral perfection from which Mr. Rudall surveys the world beneath him and pitilessly rebukes his less highly gifted fellow creatures". Although not entirely to the credit of the *Journal's* editor, the episode reflects Neild's love of a verbal war, and Rudall's restraint in controversy. It may be, of course, that Rudall's musical evenings were disturbing Neild's literary labours, for they were living next door to one another in Collins Street. Some years later, both

having moved in the interim, Neild publicly described Rudall "as a gentleman of whom we have all just reason to be proud".

The only other major controversy concerning Rudall arose from the case of Rudall v. Gilchrist (1879). Rudall successfully sued for his full fee for performing a simple laparotomy upon a patient with an abdominal hydatid cyst, who, it transpired, also had an inoperable malignant growth. The defendant claimed that the fee was unjustifiable, as no additional beneficial procedure proved possible at operation; further, other surgeons had not deemed operation advisable. The defendant's chief medical witnesses were T. M. Girdlestone and A. C. Brownless, the future



FIGURE 1.

James Thomas Rudall, F.R.C.S. (England), 1828-1907. From the original in the Museum of the Medical Society of Victoria.

Chancellor of the University. Rudall's victory constituted an important decision, in that it implied acceptance of the principle that the usual fee was recoverable for an exploratory or even an unsuccessful operation. Rudall was deeply angered by the testimony of his opponents, which reflected on his competence and judgement. In a letter to the Medical Society, he challenged Girdlestone's assertion in evidence that the operation was "unnecessary and improper", as constituting unprofessional conduct. Much of the correspondence relating to the affair has been preserved, and three representative documents are reproduced in Appendix I. After due deliberation, the Medical Society Committee announced a verdict of "unproven", which one suspects was an attempt to be tactful in a dispute involving two such prominent members of the profession. If so, it was a dismal failure. Girdlestone in particular was dissatisfied, and for various reasons the argument was prolonged and its complexity increased.

The meeting of the Medical Society which finally considered the matter, in September, 1879, was a long and bitter one, and devoted in no small measure to a consideration of points of order and procedure. Girdlestone alleged bias in the minutes and in the *Journal* report of a previous meeting dealing with the case. Immediately an outraged Neild, responsible for both accounts, indicated

to the meeting that a vote in Girdlestone's favour would necessitate his own resignation as honorary secretary of the Society and as editor of the *Journal*. This did nothing to clarify the situation, and in the ensuing confusion it becomes difficult to define accurately the Society's final attitude. Presumably it was more or less evenly divided, for the meeting passed a motion more or less in Rudall's favour, followed inexplicably by an amendment more or less in Girdlestone's favour. It must indeed have been an exciting meeting, concluding as it did, after the passage of the amendment, with Neild's dramatic double resignation. Barely a week later, ten doctors, including Rudall, met at Neild's house and decided to form a Victorian Branch of the British Medical Association, a decision which was probably influenced by the present controversy, although not solely determined by it.

In the meanwhile, a similar charge brought by Rudall against Brownless before the Medical Defence Association had been virtually dismissed, but the force of the verdict was considerably reduced by a qualification urging medical men to be circumspect in giving evidence where the competence of professional brethren was in question. This was promptly interpreted, or misinterpreted, notably by the lay Press, as an attempt on the part of the profession to avoid public exposure of mistakes and malpractice, and to dictate to the courts what evidence they should hear. Brownless immediately resigned from the Association in protest against this ambiguous and equivocating decision.

Whatever the merits of the case, it is clear that the small sum of six guineas for which Rudall sued, almost certainly on a matter of principle, was not in proportion to the strife which ensued. In fact, the genesis of the disagreement is more likely to be found over a decade earlier. Girdlestone had then trenchantly seconded a motion, proposed by Neild, to expel from the Medical Society a former President, Rudall's patron, Dr. Barker. This is another story, but suffice it to say that only Mr. Beaney and a Dr. Hunt supported the motion, the remaining 24 or so gentlemen present voting against it. Girdlestone and Rudall were on opposite sides in two legal battles in this period—*Regina v. Beaney* (1866) and *Donaldson v. Barker* (1869), both of which have been discussed. In effect, the two men belonged to different factions. Furthermore, Girdlestone was possibly a little sensitive on the subject of medical ethics; in 1868 he was a foundation member of a Medico-Ethical Society, which appears to have had an even shorter life than most of Victoria's medical societies.

The Melbourne Hospital.

Rudall's association with the Melbourne Hospital coincides with an important period of its history, and the two elections with which he was chiefly concerned are of particular interest.

An unsuccessful candidate at the 1860 election, Rudall was elected an honorary surgeon to the institution at the poll of September 4, 1865. The results of the election were as follows:

James, E. M., 639.

Gillbee, W., 605.

Garrard, W., 546.

Rudall, J. T., 523.

Howitt, G., 513.

Thomas, D. J., 508.

Fitzgerald, T. N., 507.

Barker, E., 503.

Beaney, J. G., 331.

Girdlestone, T. M., 319.

Knaggs, R., 298.

Lempriere, C., 230.

Blair, J., 266.

Seven other candidates divided 707 votes between them. The first eight candidates were declared elected. The election was notable because no less than 33 candidates contested 15 vacancies, and because two recent resident

medical officers polled better than some members of the honorary staff. These two (James and Howitt), with Rudall, replaced Beaney, Knaggs and Lempriere. An editorial in the *Medical and Surgical Review*, drawing attention to this anomaly, declared that the best men had been passed over. After all, Beaney was "better known in Europe than any other Australian surgeon", and those elected had contributed little or nothing to medical literature. Rudall's qualifications were not specifically questioned, and, in fact, the same journal had stressed some months previously that Rudall was one of the few Victorian Fellows of a Royal College who had obtained his fellowship by examination rather than by purchase. This comment had been prompted by a proposal of the Hospital Committee of Management to require specified senior qualifications of any candidate for election to the staff. As this was linked with a proposal to reduce the size of the honorary staff, certain sinister motives were imputed to the honorary medical officers on the Committee of Management, for they happened to be all possessed of the requisite qualifications.

The next election was held in 1875 and was hotly contested, as the number of surgical posts was reduced from eight to four. The results were as follows:

Beaney, J. G., 1475.

Fitzgerald, T. N., 1297.

James, E. M., 1065.

Howitt, G., 646.

Gillbee, W., 642.

Garrard, W., 579.

Rudall, J. T., 533.

Barker, E., 457.

Hillas, —, 43.

The first four candidates were declared elected. Beaney, who had spent a large sum on his campaign, was elected at the top of the poll, followed by Fitzgerald, James and Howitt. Gillbee's defeat, by four votes, after twenty-two years on the staff, was widely regretted. Rudall, polling the same number of votes as in 1865, was unsuccessful, although he again finished ahead of his friend Mr. Barker. Six months earlier Barker must have seriously jeopardized his election prospects by frankly informing a meeting of subscribers that "at present . . . it was the longest purse that won the day, and not a man's qualification".

The legality of both elections was nearly challenged in the courts by indignant subscribers, chiefly on the grounds of alleged voting irregularities. It was even moved (1875) in the Committee of Management that a subcommittee be appointed to frame a by-law "that would have the effect of legalizing the last election", but the motion was lost. It had been prompted more by the inadvertent election of the new staff for an unspecified period (the subscribers had unexpectedly rejected a by-law defining the term of office, and no amendment was proposed) rather than as a result of complaints concerning the voting.

The defeated members of the staff were invited to accept appointment to specially created offices as consultants. An advisory subcommittee had reported that the positions should be complimentary, consultation occurring only by special invitation, as was the practice in some European hospitals. It was also decided that consultant surgeons should be notified of all operations. Rudall replied cautiously to his invitation, asking for time to consider the matter. Presumably he ultimately accepted, for his name appears as a consultant surgeon in the annual reports up to the year of his death. He and other disappointed members of the staff were also appointed honorary life governors of the hospital.

Rudall's continued interest in pathology is manifest from an announcement of his next appointment made at the annual meeting of the hospital in January, 1876. It was stated that "in consequence of the retirement of Dr. Wigg from the office of Pathologist, the Committee have the pleasure to state that the position was offered to and accepted by Mr. J. T. Rudall". Although he desired to

¹ Denotes former member of staff.

¹ Denotes resigning member. Thomas had died in 1871.

resign in June of this year, he appears to have remained in the position until September, 1876, when he handed over his duties to H. B. Allen, the newly appointed demonstrator in morbid anatomy. During this period he showed a number of specimens, mostly of ophthalmological interest, at meetings of the Medical Society. Later evidence of active work in pathology is contained in his paper on the demonstration of micrococci in an eyeball removed at operation, which, although inconclusive by modern standards, is an early one in this field (Rudall, 1882a).

The Alfred Hospital.

On the death of Dr. John Blair, for many years chairman of the honorary medical staff, Rudall was elected an in-patient surgeon to the Alfred Hospital in 1887. His resignation was received on September 27, 1901, when his place was taken by Hamilton Russell. The next annual report of the Hospital records an appreciation of his conscientious surgical work, and announces his appointment as a consulting surgeon. To have held both active and consulting appointments at Melbourne's two senior general hospitals must be a distinction possessed by few.

Although clinical work at the Alfred Hospital had been recognized by the University since 1880, an organized clinical school did not come into being until March, 1888, when eight men and six women were enrolled. As a member of the honorary staff, Rudall was one of the first clinical tutors appointed, and in this capacity he taught Victoria's first female medical students. No record has been found of his qualities as a teacher, although *Speculum* (the journal of the Medical Students' Society) contains several references to the popular clinics of his contemporary, Henry O'Hara. Part of one of his clinical lectures (on hydatid disease) was published (Rudall, 1895). The new clinical school faced difficulties of accommodation, as lack of space precluded instruction of the students in diseases of women and children and in other special departments which had recently been established. Rudall was one of three members of a deputation from the medical staff to bring this matter before the Committee of Management in November, 1888. Worse was to come, for less than two months later fire gutted one wing of the hospital.

It is perhaps significant in regard to Rudall's breadth of outlook that he does not appear to have sought appointment to the department for diseases of the eye. This had been instituted in 1886, and there were several elections in the next fifteen years for the position of medical officer in charge. At least towards the end of this period, Rudall's private practice was predominantly ophthalmological.

The Medical Society: The British Medical Association.

In December, 1865, Rudall was elected to membership of the Medical Society. It is strange that he should not have been a member already, after seven years' residence in the colony, especially in view of his friendship with Barker, who was a prominent member and President in 1859. Rudall had contributed no less than eight papers to the Society's journal by this time. Subsequently he was intermittently on the committee, although at least once, in January, 1876, he wrote declining the honour (Rudall, Letters, 1876). His association with the Society did not cease when he began to play an active part in the British Medical Association Branch, for in 1884 he was offered a vice-presidency in the Society. He considered that his time would not allow him to accept.

Apparently at the instigation of Dr. Louis Henry, ten doctors, including Rudall, met at Neild's house at 165 Collins Street on September 11, 1879, shortly after the dramatic meeting of the Medical Society described previously. Acting upon authority delegated to Henry while he was in England, they decided to submit to a general meeting of the profession a proposal for the formation of a Victorian Branch of the British Medical Association. This was done on September 25, 1879. Thirty members were enrolled immediately (the Medical Society membership at this time was approximately 130), and Rudall was elected to the first Council. He resigned to go

abroad in 1881, but was reelected on his return in 1882. He became a vice-president in 1883-1884, and in August, 1884, was elected president for the ensuing year. Over the years his activities on behalf of the Branch were numerous, and he contributed freely to its journal (*Australasian Medical Gazette*) and to its scientific discussions. As one of the Branch representatives he gave evidence before the Royal Commission on Asylums for the Insane and Inebriate (1885) and on Charitable Institutions (1890). He read a paper at the first Intercolonial Medical Congress in Adelaide (Rudall, 1888a), and was a member of the organizing committee for the subsequent congress held in Melbourne in 1890.

On the occasion of his visit to England, America and the Continent in 1881, the Victorian Branch presented him with an address "as an expression of respect and admiration for his scientific labours", and at the same time appointed him to represent the Branch while in Europe. His overseas journey is well documented by a series of three papers (Rudall, 1882b, 1882c and 1882d) delivered at meetings of the Branch on his return. He had attended the Seventh International Medical Congress in London, paying particular attention to the Ophthalmological Section. Under the presidency of William Bowman, F.R.S., the section discussed, amongst many other matters, colour blindness and the question of sight tests for signalmen, both subjects to which Rudall later directed the attention of his countrymen (1883, b, d; 1887, a, b;



FIGURE II.

Membership medallion, Seventh International Medical Congress. The obverse bears a representation of Queen Victoria. From a medallion in the possession of Professor K. Russell.

1888a). Figure II shows the medal which members of the Congress received. Of great interest even today are his accounts of visits to famous general surgical clinics, such as Billroth's, and to ophthalmological clinics in Paris, Vienna, Utrecht and New York. At one meeting he also exhibited some new instruments which he had brought back with him, eliciting the comment from Gillbee that "we elaborated too much—we invented toys". Rudall retorted that manual dexterity having improved, there was now no need to rest content with as little as their forefathers had done. Apart from this minor criticism, there was a justifiable unanimity in warmly complimenting Mr. Rudall "upon the care with which he had made his observations".

¹ The names of a surprising number of the recipients are familiar today: Pasteur, Gull, Paget, Volkmann, Charcot, Snellen, Esmarch, Bigelow, Donders, Virchow, Owen, Erb, Austin Flint, Spencer Wells, Brown-Sequard, Osler, to mention a few.

The Victorian Asylum for the Blind and Other Organizations.

Rudall was honorary surgeon oculist, or honorary oculist, to the Victorian Asylum and School for the Blind from its inception (1866) until 1901. As such, he contributed much to the annual reports of that institution, one example being published in *The Australian Medical Journal* (Rudall, 1874b). He also spoke (1882g) on continued fever as a cause of optic neuritis, and it is interesting that he should have found this one of the common causes of blindness in the colony. At an inquiry into the administration of the Asylum in 1877, Rudall stated that it was his practice to visit all new patients and to take his own notes, no case book being maintained for medical examinations only. Otherwise, he visited only when requested to do so by the superintendent. Surgical operations were performed when indicated. One patient alleged that he had been inadequately examined by Rudall, chiefly because ophthalmoscopy had not been performed. Although Rudall challenged the statement that the examination was inadequate, it appears that on this occasion he considered that ophthalmoscopy was unnecessary partly because it had already been employed in New Zealand. However, there was no hint of any general complaint regarding his services.

Although never associated officially with the Eye and Ear Hospital, Rudall was the first vice-president of the Melbourne Ophthalmological Society, formed in 1899, which met there. A. S. Gray was the first president, and he was succeeded by Rudall in the following year. On one occasion, his son, James F. Rudall (see Note 34, appended to the diary) read a paper under his chairmanship. Less than twelve months before his enforced retirement, Rudall showed his lasting interest in pathology by demonstrating a specimen of a pseudoglioma (1900).

For a number of years Rudall was honorary surgeon to the Deaf and Dumb Institute, and in private he is said to have specialized in ear, nose and throat diseases as well as in ophthalmology. He appears to have been largely responsible for the introduction of Politzer's work to Australia (Rudall, 1867b, 1876f).

Among other organizations with which he was connected, the Medical Benevolent Association is worthy of particular mention. Although not at the inaugural meeting in 1865, he was a subscriber in its first year, and in later years he served on the committee and as a vice-president. He was also a contributor to the Australian Health Society, for which he wrote a paper on ophthalmia (1879a). Proposed by the president, Mr. R. J. Ellery, the Government Astronomer, Rudall was elected to membership of the Royal Society of Victoria in September, 1868. He became a member of the Council in the following year, remaining on it until his resignation in 1890. On several occasions he acted as a university examiner in pathology or in physiological chemistry and physiology, notably in association with S. D. Bird, J. W. Springthorpe and H. B. Allen.

When his work for orchestral and other musical societies is added, details of which it has proved impossible to trace, it becomes apparent that no small amount of Rudall's time was devoted to the interests of the community.

Ophthalmology.

H. B. Allen and others referred to Rudall as one of the first in Melbourne to confine his practice exclusively to ophthalmology, which he did for some years before his death. His interest is manifest as early as 1854, when he treated the Eskimo with wounds of both eyes. In later years he was one of a small group of Australian members of the Royal Ophthalmic Society in the United Kingdom.

It is of interest to review Rudall's early contemporaries in this field. The Melbourne Directory for 1868 lists five surgeons in Collins Street who described themselves as "surgeon and oculist". First and foremost was A. S. Gray, who founded the Eye and Ear Hospital in 1863, and financed it out of his own pocket for some years (see also

Note 31). Perhaps next in importance was Aubrey Bowen, who became associated with E. M. James in the following year in the formation of an Ophthalmic and Orthopaedic Institution. There were those at the time who viewed this curious alliance with considerable disfavour, regarding it as mere advertisement; but be that as it may, it was soon combined with Gray's hospital, the orthopaedic section ceasing to function altogether. The others were William Russ Pugh, James Keene, and Rudall. Pugh is frequently mentioned in Rudall's diary, and is better known as an Australian pioneer in anaesthesia. Keene was the first editor of the *Medical and Surgical Review (Australasian)* (Gandevia, 1952a), the first issue of which contained an article by Rudall (1863a). Interestingly enough, one of the two other original papers was written by J. G. Beaney.

Rudall's numerous papers on ophthalmology indicate that he was aware of, practised and advocated the major advances in the subject as they were developed. Thus he advocated optical correction for the hypermetropia associated with tired eyes, rather than drug treatment and non-specific measures (Rudall, 1866d). The latter was a lengthy and technical paper read before the Medical Society; it was based on the writings of Professor F. C. Donders (Utrecht). Donders's classical and fundamental work, "Anomalies of Refraction and Accommodation", to which subsequent innovations "have added or detracted little of material value" (Sorsby, 1933), had first appeared in English in 1864. On the aetiology of ophthalmia Rudall's views were severely traditional, but his demonstration of micrococci in the interior of an eyeball in 1882 indicates an early appreciation of the possible significance of bacteria in the causation of disease (1882a). Other examples could be cited, but it is clear that his approach was clinical rather than experimental.

The grounds for the suggestion that Rudall was the first, or one of the first, to use the ophthalmoscope in Melbourne are discussed in Note 31 to the diary. Certainly his journal appears to be the first recorded instance of its use. That this was infrequent in Victoria even in 1860 may be inferred from John Wilkins's somewhat ambiguous observation that "it must be remembered, that till very lately the ophthalmoscope has been practised with perfect success by but a few even in England".

General Surgery.

Although a Chinese surgeon, Pien Chiao, is said to have performed gastrotomy over two thousand years ago (Gordon, 1949), the modern history of such operations begins with the suggestion of Engelbert (Norway) that gastrotomy should be performed for oesophageal stricture. This was first done by C. E. Sédillot, of Strasbourg, in 1849. A report of an American case was abstracted in *The Australian Medical Journal* in 1856, but Rudall reported the first Australian case in 1867. He incorrectly described the operation as one of "gastrotomy", but he had realized the distinction by 1885 (1885c), when he drew attention to his priority in this field. In effect, as with "cholecystotomy" and "cholecystostomy" (Gandevia, 1952b), the terms were frequently used interchangeably.

The case report makes exciting reading, for laparotomy in those days was indeed heroic surgery, both from the surgeon's and from the patient's point of view. The operation was conducted under local anaesthesia, administered by Dr. Barker with an ether spray, the patient's condition being too poor to admit of general anaesthesia. Rudall was assisted by William Carey Rees, one of the first graduates of the Melbourne Medical School. Rees later prepared the specimen for presentation to the Medical Society, for the patient died post-operatively of peritonitis. Of particular interest is Rudall's attempt to establish the diagnosis by microscopic examination of material obtained from the distal end of an oesophageal bougie, which could not be passed beyond the obstruction. In his own words, "no structures characteristic of malignant disease were found". This is the earliest example which I have been able to trace of applied exfoliative cytology, to use the term by which such investigations are now dignified. A letter from Rudall, discussing the presentation of the

case to the Medical Society, is in the possession of the Society's museum (Appendix II).

The case report of a death under chloroform (Rudall, 1868b) is valuable for its description of the strenuous resuscitative methods then employed. One quotation must suffice:

The external jugular vein on the right side being distended, Dr. [D. J.] Thomas, who was standing close to the table, recommended me to open it. I drew a lancet from my pocket, and made an incision into the vein, from which dark blood flowed pretty freely.

Rudall performed the first successful tracheotomy for diphtheria in Australia in April, 1865 (Rudall, 1865b, 1885c). The operation was first suggested for laryngeal diphtheria by Pierre Bretonneau in 1825. Since there can be little doubt that diphtheria first appeared in Australia in 1858 (Cumpston, 1927; Thomson, 1872), it is at first thought surprising that seven years should elapse before a life was saved by tracheotomy. However, in the absence of any method of combating the toxæmia, which was regarded by most surgeons as a more important factor in the ultimate outcome than respiratory obstruction, the operation was rarely performed. Even twenty years later Rudall's oft-repeated claim, that tracheotomy at least improved a child's chance of survival, was disputed (Rudall, 1885; Discussions, 1866 and 1882). The prevalent opinion in 1865 was expressed by W. Lindsey Richardson, of Ballarat, father of Henry Handel Richardson and prototype of Richard Mahony, who could not speak "with favour" of intubation or tracheotomy after seven years' experience of diphtheria. William Gillbee and T. M. Girdlestone held similar views.

Reference has been made to the fact that diphtheria first appeared in the colonies in 1858, coinciding with a worldwide increase in the incidence of the disease and the first major outbreak in Great Britain. Rudall's diary records that on Sunday, October 17, 1858, Mr. Barker, assisted by Rudall, performed tracheotomy on Mrs. Dewar's child, the patient dying some hours later. Rudall's specific reference to the "diphtheritic" membrane in this case appears to be the first use of this word in Australian medical literature, an honour which Cumpston accorded to J. A. Moore, of New Norfolk, Tasmania, writing in *The Australian Medical Journal* in 1859. Thomson (1872) wrote of the introduction of diphtheria to Victoria: "On 2nd. October, a death took place, the first, in King-street; on the 17th., the second, close by in Spencer-street; on the 21st., the third, in Spring-street. . . ." The diary suggests that Thomson visited Rudall once, possibly twice, during November, and he may well have seen the microscopic preparation which Rudall had made and had proudly shown to the Chief Justice, Sir William Stawell, among others. At all events, Thomson's second case is certainly that of the child of Mrs. Dewar; Rudall therefore shares with Barker the probable distinction of having performed the first unsuccessful tracheotomy for diphtheria in the colony. It is unlikely that the case was one of "croup", which, although it existed in the colonies before 1858, was not a common cause of death and was probably never diphtheritic.

Rudall (1885c) also claimed to have been the first in the colony to have performed amputation through the hip joint, in November, 1868. There is no evidence in the literature that this is other than correct, but Rudall did not publish the details of the case.

In other respects the bibliography is sufficient indication of the scope of his surgical activities.

Epilogue.

James Rudall's professional career drew towards its close in the latter half of 1901, when ill-health forced him to resign his hospital and other appointments. His death, from cardiac and cerebral vascular disease, occurred on March 4, 1907, at the age of almost eighty years, and after almost half a century of colonial medical practice in what Dr. Leslie Hurley has aptly described as a "golden age of medicine". Over twenty years earlier, Rudall (1885b) had effectively summarized his impressions of his medical era

in his presidential address to the Victorian Branch of the British Medical Association. His paper was that of a man whose wide experience had been carefully assessed and assimilated. He spoke at length on medical education, and reference has already been made to his comments on the value of the apprentice system. To bridge the gap created by its passing, he advocated a scheme of tutorial clinical teaching in the hospital wards, not only in general surgery but in various special departments, the creation of which he regarded as long overdue in Melbourne. He discussed briefly two of his own favourite topics, the pathology of cancer and the necessity for the provision of adequate sight-testing for transport employees. He was able to refer to the undoubted boon to ophthalmology of an efficient local anæsthetic, cocaine, which had been introduced by Carl Koller, of Vienna, in the previous year. He could describe the immense benefit to humanity that resulted from the adoption of "listerism", and he had also to record the death of the man who introduced it to Melbourne, William Gillbee, an old colleague from whom he had occasionally differed, but who had arrived in this distant colony not many years before Rudall himself. At the conclusion of his address, the meeting adjourned to the Maison Dorée, where the President entertained the members to supper. At this convivial gathering it is fitting that we should leave him, now no longer lonely, and with every reason to be content.

From the preceding account of his professional life and from the glimpses of the man himself revealed in his diary, there emerges a picture of a gentleman who was a sound general surgeon, an accomplished and, when necessary, a daring operator, a leading ophthalmologist and a competent pathologist; of a most human man, dignified even in controversy, very careful of his finances but generous when the cause was just, appreciative of his cigar, his brandy and his ale, and withal a musician of acknowledged ability and an energetic worker in many fields for the welfare of his fellows. The records of the institutions and societies with which he was connected contain many expressions of appreciation of his services, and it is appropriate that the publication of his diary, now almost a century old, should be accompanied by a further tribute to his memory.

THE DIARY OF JAMES T. RUDALL, MARCH TO NOVEMBER, 1858.

The small morocco-bound notebook, from which the first few leaves have been carefully cut, lacks the owner's name, but there is ample internal evidence to establish its authorship. This may be summarized as follows.

1. The diary shows that the writer appeared before the Medical Board of Victoria on Monday, August 2, 1858. Rudall was one of several registered on this day, and is the only one likely to have written the diary.

2. The writer states in the diary that he has a letter of introduction from a "Mr. Geo. Rudall", which is suggestive in itself. The middle "d" of "Rudall", although small in size, has the shape of a capital "d", a very characteristic feature of the signature of J. T. Rudall, as shown on a number of his letters recently catalogued for the Museum of the Medical Society (Figure III).

3. Two papers in *The Australian Medical Journal* by J. T. Rudall can be correlated accurately with certain references in the diary (Rudall, 1858, 1860b).

4. The identity of interests possessed by the author of the diary and Rudall is remarkable (for example, music, ophthalmology and pathology). Other links are demonstrable, but equally important is the fact that there is nothing in the diary which is incompatible with the assumption that it was kept by Rudall.

In preparing the diary for publication I have been guided very largely by the wish to present an interesting document in a readily readable form. I have therefore taken some editorial liberties in modifying spelling and punctuation, in extending some abbreviations and in omitting occasional alternative readings. The material presented represents approximately three-quarters of the full text, the outward voyage being almost unabridged, and no material of medical significance being omitted at any

stage. A more academic rendering of the full text is preserved in the Museum of the Medical Society of Victoria. Mr. Brody's correct name has been suppressed on account of the particular disease which he unfortunately developed, and which receives such cursory mention; otherwise the names have been altered to the commonest rendering to preserve uniformity, or to the correct spelling where identification is certain. The numbers in parentheses refer to the notes which follow the text. A series of stops between two entries indicates the omission of one or more complete entries, but Rudall did not write in his journal every day. Except where they seemed of special interest, his expenses, recorded daily after his arrival, have been omitted, but are summarized in Note 48.

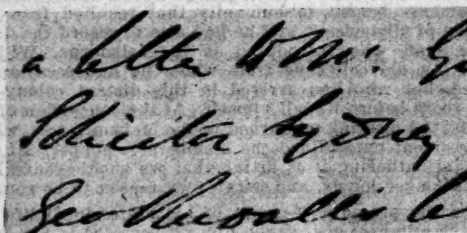


FIGURE IIIA.

Reproduction of part of the diary. Compare the letter "d" in "Sydney" and in "Rudall". A better example of the usual small "d" is seen in the first line of Figure IV.

The Text of the Diary.

Saturday, 20th March: Arrived at Gravesend at 2 p.m. Dined with Mrs. Rose, Coster & self. "Queen of the Seas" (1) arrived off the town at 7½ p.m. Went on board immediately—Coster (2), self & Miss Blyth Paid the boatmen for pulling us on board 10/- & 6d. to porter for Miss Blyth's luggage. Cabin very small & uncomfortable. Saw Mr. Quick Sen.—turned in at 11 p.m.—after that his medical attendant called on me.

Sunday, 21st March: In tow of "Napoleon" steam tug leaving Gravesend about 7 o'clock a.m. Cast off from her about 3 p.m. there being appearance of a breeze springing up. However, soon after it fell a dead calm and we cast anchor. In the morning soon after breakfast I spoke to Mr. Quick & proposed to examine his chest, but as he decidedly objected I did not press it further, it being useless to do so.

Monday, 22nd March: Mr. Quick did not appear at the breakfast table & I went into his cabin soon after the meal was over—found him breathing very quickly and frequently. Advised him to remain in bed & told the steward to get him some tea. About an hour afterwards he sent for me. I found him in a state of collapse. He complained of being very faint etc. Gave him some wine & procured some arrowroot from my own cabin & gave it to him. I at once informed Capt. Gardner of his dangerous condition & that the fatal event even might occur at a very short notice. This was I think not long after the river pilot & Mr. Mincho (Hotchkin's clerk or agent) had left the (X) [sic] ship. He rallied, however, and became more free from discomfort. I took the opportunity of putting a stethoscope to his chest & found evidence of cavities in both apices—any more minute examination was out of the question. I remained with him until dinner time, when the Captain got a woman to attend to him. I remained a considerable time with him after dinner & while sitting in the cuddy, the woman Mrs. Gray called me into his cabin and I found him passed away—the fatal event occurred at 6.10 p.m. & while I was writing (X) on the previous page. The loose things in his cabin were put up & the Captain locked the door & took charge of the key. Under sail all the day—reached the Downs about midday. Wind very light, making about 3 knots an hour. No seasickness yet.

Tuesday, 23rd March: Wrote a letter to Mr. Quick's father & delivered to Capt. Gardner for transmission, also certificate of death in duplicate—*Pulmonary Consumption* (3). Off the Isle of Wight. Wind light—scarcely any motion of the ship. Boatswain came for a dose of medicine Wrote to Aunt Anna. The letter will be taken ashore by the Pilot early to-morrow morning.

Wednesday, 24th March: Wind light, course west, at 12 o'clock making 5 knots an hour, some of the ladies seasick

Thursday, 25th March: Wind light, fair—but at 6 p.m. making 7 knots. Mrs. Christal poorly—probably premonitory signs of labour. Prescribed her tea yesterday. Visited her again in the evening. . . . This morning it was discovered that a man had secreted himself in the fore-cabin before the vessel left, for the purpose of getting a passage to Australia. He is an engineer by business. There is no doubt that at any rate some of the apprentices were cognizant of his being on board. The captain bought some fish yesterday of the master of the fishing boat we spoke. Staid up some time with Mrs. Christal & then turned in partly dressed.

Friday, 26th March: Mrs. Gray called me about 4 o'clock to Mrs. Christal—staid a little while & then went to my cabin & turned in in my clothes. Left the breakfast table before I had finished & went to Mrs. C. The child was born within a few minutes of my rupturing the membranes—at a quarter past nine o'clock a.m.—a boy—very small, but at any rate not long before the full period of gestation. To be called "Neptune". Miss Blyth still seasick—obliged to leave the dining table. Wind very light but some swell—ship rolling and pitching a little. Six vessels in view at 10 a.m., one very fine full-rigged ship. Prescribed for Loder, seaman—gonorrhœa. Mr. Christal gave me two guineas for my attendance on his wife. Many of the passengers seasick.

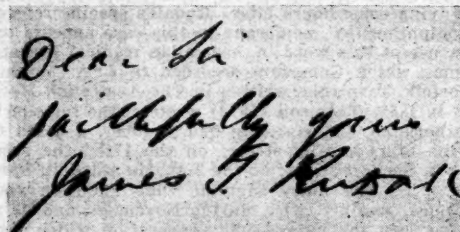


FIGURE IIIB.

Reproduction of the conclusion of James Rudall's letter on the case of gastrostomy (Appendix II). Note the normal capital "D" of "Dear", and compare the peculiar "d" of "Rudall" with that in Figure IIIA.

Saturday, 27th March: Ship more uneasy but steady for the weather. Miss Blyth very sick. Gave her an effervescent mixture with morphia and prussic acid.

Sunday, 28th March: Blowing a fresh breeze. Most of the passengers sick—a very small muster at breakfast & still fewer at dinner—able to keep very well myself. Miss Blyth asked me to take her mother's address, viz. Foxley Road, Pembroke Square, Kensington. Afternoon took in some canvas which eased the ship

Tuesday, 30th March: For the last three days it has been blowing very hard, last night a gale, but there is not so much sea as one would expect. The captain gave me the cabin lately occupied by Mr. Quick—also left the swinging bed there—this was several days ago. Miss Blyth & many other passengers both ladies & gentlemen continue very seasick—have not been at all so myself. No amusement except a very little reading during the day & whist or cribbage in the evening.

Thursday, 1st April: Last night & to-day the wind has got down but there is still a swell on. However we are all

of us glad of the change. Miss Blyth much better—was on deck greater part of the morning.

Saturday, 3rd April: Blowing a fresh breeze all day. Lent Mr. Richards violin part of Haydn's Symphonies . . .

Sunday, 4th April (Easter Day): 8 a.m. blowing a strong breeze, about 11 a.m. it freshened to a gale—between 1 & 2 p.m. it was a very heavy gale against us. The ship rolled so much as to dip her foreyard in the water. We were under close reefed fore & main topsails, & fore & mizzen staysails. The medicine chest carried away though secured by battens. Several bottles were broken—caustic, iodine so split. The stewards could not bring the soup aft & the joint of meat rolled off the table in to our laps. Of course we could not have divine service. The Capt. did not leave the deck to have his dinner. We got some tea at 7 o'clock & some hot water for grog at nine—& then I rolled myself up in my rug with my trousers & waistcoat on. About the middle of the night the gale moderated & before morning we were able to make sail steering due south. Though the wind blew strong there was no sea on. The horses were much frightened, being in a bath of sweat & foaming at the mouth & trembling. A good deal of water was taken into the waist over the ship's side (when she lay over)—much of it got into the second cabin but we were fortunate to have none of it aft.

Wednesday, 7th April: A Prussian sailor in the star-board watch came to me with feverish symptoms—put him on the sick list. Opened a large boil on left nates of Master Wm. Taylor.

Thursday, 8th April: . . . Sighted an Austrian (?) [sic] man of war, showed our colours—did not come nearer than about 3 miles. Sighted land at about 1 p.m. on the port beam—this was Porto Santo. About 4 p.m. we made out Madeira bearing nearly S.W. on the port bow. We had several slight squalls during the afternoon. Found the Prussian seaman Woolroch with a papular eruption over his face, body & limbs with feverish and catarrhal symptoms. Reported to the Capt. that I expected either smallpox or measles.

Saturday, 10th April: The greater part of yesterday and up to the present time to-day (1 p.m.) we have been becalmed, scarcely changing our position except being ten or 15 miles nearer the land. It is clear that the Prussian is suffering from measles. The eruption is fading away, but he still has symptoms of discomfort about the chest. In the afternoon a breeze sprung up from the S.W. which was just a head wind. Several vessels in sight during the greater part of the day.

Sunday, 11th April: Light breeze from the S.W. Weather very fair & pleasant until tea time when it began to rain & the breeze freshened. At 7 p.m. went about ship. Woolroch the Prussian complaining much of cough. Eruption fading away but still quite evident. Gave him a mixture of Soda Tart., Antim. Tart., Vin. Ipecac., Tinc. Opii. Had divine service in the morning and evening. None of the second cabin passengers attended . . .

Monday, 12th April: Very little wind making only about 2 knots an hour but keeping our course. Saw several whales in the distance spouting also a grampus (?) [sic] very near the ship. A number of albacorries were seen astern. We put out some hooks but they would not take any notice of them. Fired at them with our pistols when they came to the surface but did not kill any. One of the sailors struck one with a harpoon. It was got on board. They are shaped very much like an immense mackerel. I had a headache nearly the whole of the day. It became much worse in the evening (4). Woolroch is going on well. The eruption is still visible.

Tuesday, 13th April: Woolroch doing well but some chest oppression, eruption faintly distinguishable.

Wednesday, 14th April: Wind foul, rather fresh. Woolroch doing well. Towards the evening the wind freshened—several of the passengers seasick again. About 10.30 p.m. I went on deck (after I had turned in) & found a squall coming on. It was a very heavy one, the ship rolled & pitched a good deal. Fortunately nothing got adrift in my cabin.

Thursday, 15th April: Wind fair but very little of it—sea smooth. Read some French. Sent Woolroch to light duty yesterday—eruption gone.

Friday, 16th April: Wind fair—going almost straight before it—6 or 7 knots an hour. At 3 p.m. saw a schooner aft of us hull down. We are steering nearly S.W. Gave Miss Blyth Pot. Iodid. gr. iv *ter die* for severe pain in the hip, increasing at night.

Thursday, 22nd April: One of the men (Verrey) sent for me complaining of severe pain across the epigastrium. Pulse frequent & full (105-110), skin moist, tongue nearly clean, no cough, but pain on deep inspiration. The noise & sea prevented me making an accurate physical examination, but there was nothing very obvious. Gave him a

my severe headache & pain in the back—gave her an opening dose—lent Miss Lacey 3 songs with flute obligato yesterday received a note from her today requesting permission to copy them
Friday April 23rd
 Verrey better. Extracted a tooth for Miss Osborn's abscess on the upper jaw. The operation successful.
Saturday April 24th
 The Boatswain came to me complaining of a swelling in the right groin which I discovered to be an inguinal hernia—gave him a truss.

FIGURE IV.

A specimen page of the diary, actual size, showing parts of entries for April 22 to 24.

mixture of Ant. Tart. & Mag. Sulph. and Tinc. Opii. Mrs. Taylor complaining of severe headache and pain in the back—gave her an opening dose. Lent Miss Lacey 3 songs with flute obligato yesterday. Received a note from her to-day requesting permission to copy them.

Friday, 23rd April: Verrey better. Extracted a tooth for Miss Osborn . . . & opened abscess for one of the apprentices.

Saturday, 24th April: The Boatswain came to me complaining of a swelling in the right groin web. I discovered to be an inguinal hernia—gave him a truss. His name is Wm. Pearce, wt. 47.

Monday, 26th April: Omitted to note that on Saturday we had dancing on the quarter-deck for the first time

—Polkas, Schottische and Country Dance. The thermometer [readings] to-day are (a) 96°, (b) 83°, (c) 87°, (d) 83° Fahr. all in the shade.

Tuesday, 27th April: Had rain several times yesterday—last night very heavy indeed. Several of the gentlemen went on deck & I am informed that some of the ladies [initials or illegible names of three persons] were in her [? the] cabin in their robes de nuit. They, and I was very pleased to hear them, defended themselves . . . [one or two unreadable words] this morning from any imputation of immodesty. Thermometer 85° . . . no doubt much higher.

Sunday, 2nd May: Had divine service in the morning only. Weather very warm. In the evening a flying fish was picked up on the deck by the 2nd mate—it had killed itself by flying against one of the sails. I looked at it & found a parasite attached to it in the angle of attachment of the right ant. fin—it was probably a hermean of some kind.

Monday, 3rd May: Examined Miss Blyth to-day & find that she is suffering from ingrowing of the toe nail. I recommended its entire removal to wch. she seemed inclined to consent. She has been told that it is Rheumatic gout by Dr. MacKenzie (5) (the oculist) & some other medical man.

Friday, 7th May: Felt poorly—bowels disordered—did not appear at the dinner table but had some soup in my cabin.

Saturday, 8th May: Still poorly but up to breakfast and dinner—much irritation about the bladder.

Sunday, 9th May: Laid up.

Thursday, 13th May: For the first time since my indisposition dined at the dinner table—am now much better but am weak, having taken Hyd. c. Creta nocte maneque etc. In the evening suffered severe pain across the loins (not renal, however). B. [Bowels] rather confined—an injection of warm water had little or no effect.

Friday, 14th May: Better—pain in back gone and b. open. Aching between the shoulders probably from tired muscles (Paget). One of the little cats fell overboard about the middle of the day. Nobody on deck had sense enough to lower the life buoy or a line, so she drifted astern. When the Capt. was told he ordered the quarter boat to be lowered, so she was picked up after some delay, not much the worse for the ducking.

Saturday, 15th May: Very warm to-day—feel very weak but doing well. [Note—no entry for over a month.]

Friday, 25th June: Mr. Barnes & I shot several cape pigeons & other birds with my gun. I had before shot . . . [?] & some other birds offered, but I do not now remember the names. Gave the Capt. a copy of the certificates of death of Mr. Quick & of the birth of Mrs. Christal's baby (from this book). We have been almost becalmed for the last day & a half (now 2 p.m.)—except the want of wind the weather is delightful.

Tuesday, 29th June: Frederick Robinson (st. about 18) (?) [sic], apprentice, died about 3.15 p.m.—his death was reported to me about 3.22 p.m.—of Phthisis. Since yesterday morning he has had a person in constant attendance night & day. He has been under my care almost ever since we left England for enlarged glands in the neck & gastric disturbance, but for the last 6 or 7 weeks has suffered from Acute Phthisis with considerable involvement of the stomach & febrility. Five or six days since I announced to Capt. Gardner that his death was to be expected, and 48 hours ago I reported that the event might take place at any moment. Emaciation is extreme & has taken place very rapidly from his not being able to assimilate any nutriment. At about 1.15 a.m. I was called up to Mrs. Searle. I found that she had aborted, the fetus being from the latter part of the 4th. to the early part of the 5th. month of gestation. She suffered a good deal of pain & still complained when I visited her at 9½ this morning.

Wednesday, 30th June: Fredk. Robinson, st. 18, apprentice, was buried this day at 4 o'clock in the afternoon. Cause of death, Acute Phthisis.

Sunday, 4th July: Mrs. Searle showed me what appeared to be a portion or the whole of the placenta wch. passed from her about the middle of the day—rather suspect that she may have a uterine tumor.

Monday, 5th July: Readjusted splint & bandages on Henrich's arm.

Thursday, 8th July: At about 10 a.m. saw the longest rollers that I have ever witnessed. Mr. Fortman thought that they were half a mile in length: I should think he is not far out.

Friday, 9th July: Verrey has paralytic symptoms—for two or three days he has been passing his water with less force of stream & sometimes guttation. Today he can only draw up his legs a very little way in the bed & they may be lightly touched without his being aware of it, though he feels firm pressure made on them. He had cough & some spitting of blood with pain across the epigastrium. I am by no means satisfied as to the nature of his complaint.

Tuesday 13th July: Many of the crew & passengers were catching Barracouts.

Wednesday, 14th July: Making Port Phillip heads. Pilot came aboard at about 20 minutes to 12 o'clock. Mr. Taylor's horse died a few days ago. Passed through the heads in the afternoon. Quarantine off. came on board at 2½ p.m. About 4 came to an anchor.

Thursday, 15th July: Heaved up anchor at about 5½ p.m. & sailed up south channel: came to anchor in Hobson's bay about 3 a.m.

Friday, 16th July: Went ashore in a boat with Capt. Gardner, Mr. Barnes, Mr. Christal & some of the agents' people—about 4 miles. Steam tug came alongside about noon & took the ship up to Sandridge wharf at about 3 p.m. . . .

Saturday, 17th July: Presented letters to Mr. Barker Surgn. (6) La Tröbe St., Dr. Pugh (7) William St., . . . Mr. Glen, Music seller etc., Bourke St., Mr. Croad Chemist.

Sunday, 18th July: Passed No 8 sound for George [the steward: see 9th August and 13th September]—he has a slight stricture. Examined L. Verrey—suspect chronic pleurisy or perhaps pleuropneumonia with some Phthisis. Gave him Hyd. c. Creta gr. iii, Pulv. Ipecac. Co. gr. iv, nocte maneque, & a stimulating liniment to the chest.

Monday, 19th July: Presented letters to E. Mackenzie Esqre. Colonel Secretary's Office . . . W. H. Archer Esqre., Registrar Genl's Office, who promised me a letter of introduction to Dr. McCrear. Expenses (Hat 25/- & rail 1/6) 26/6.

Tuesday, 20th July: Visited Miss Blyth's brother & examined him (chest etc.) at Prahran—refused a fee from Miss B . . . Mr. Blyth is suffering from rheumatism affecting particularly the knee joints (there is fluid in each), he has emphysema of the lungs—& has no doubt been a hard drinker. He is much reduced & emaciated. Tongue foul & little appetite but I think he may get about again with warm weather. Sent some clothes to wash . . .

Wednesday, 21st July: Called on Nihill, Archer & Dr. McCrear (8), also on Mr. McKenzie. Mem.—Engaged to dine with Mr. McKenzie on Sunday at 2 o'clock: Mr. McKenzie [cor.] James St Brighton St Richmond. Dr. McCrear offered me an appointment to the Prison at Ararat £50 a year—asked for a little time to consider of it . . . Took Verrey to the Hospital.

Thursday, 22nd July: . . . Went shooting in the morning but we had no sport. Took the boatswain to be fitted with a truss. Went to dine with Mr. Woods at St. Kilda . . . had music, singing & cards—did not play at either myself. Had a general invite to the house wch. I shall avail myself of—staid the night. Mem. Paid for truss 25/- boatswain's rally. fare 1/6. Expenses (ale, rail, cigars) 3/6.

Friday, 23rd July: Called on Nihill (yesterday on Dr. Pugh) I think that it is much better for me to commence practice in Melbourne without loss of time if I can clear board & lodging in an eligible situation for 50/- or 60/- per week. If I leave the town many of my introductions here will not avail me anything. Nihill agrees with me upon this point.

Saturday, 24th July: Had shirt link repaired; called on Dr. Pugh. N.B. 3½ months pay due to me this day.

Sunday, 25th July: Morning went to Church. Dined at Mr. Mackenzie's Also saw Dr. Wilson of Church St., Richmond, formerly of the Edinburgh & King's College Med. Schools. *Mem.*—To call upon him as early as possible—& also to call on Mr. Mackenzie. Walked all the way home.

Monday, 26th July: Went up to Melbourne by 1st train & called on Mr. Barker & went round the Hospital with him. Then called on Nihill & left advertisement to be inserted in the Argus (with 4/6) for lodgings Called on Dr. McCrea & declined offer of the position at Ararat for £50 a year. Dr. M. says appointments are made by the government. Bought an umbrella 30/-. Bought 3 lb. no. 3 shot & 1 doz. Ely's Cartridges. Mr. Barker introduced me to Drs. Motherwell (9) & Eades (10). *Mem.*—To call at Dr. McCrea's office with Diploma on Monday next at 1 o'clock.

Wednesday, 28th July: Called on Nihill & received 2 replies to my advertisement in yesterday's "Argus"—one from Mrs. Mackenzie, of 147 Collins Street East, whose husband, Dr. MacKenzie, has been practising there & is now gone up the country (11)—the rooms are very good—£3.0.0 per week with board. I think of taking them to-morrow. Called on Mr. Glen & delivered packet of Musical Almanack Books on the Flute etc. etc. Mr. G. promised to make enquiries about lodgings for me. After dinner went shooting—no sport.

Thursday, 29th July: . . . Called on Mrs. MacKenzie for the purpose of taking the rooms, but she would not keep to her terms, saying she could not furnish the sitting room for what she offered me them for yesterday. As I do not like this sort of conduct I at once gave up all intention of coming there, nor would I upon principle offer her any higher terms. Called on Mrs. Bennett 2 Alisa Terrace (12). Saw rooms 1st floor unfurnished 25/- servant's attendance 10/- per week. If the situation was better I should much incline to take them. Mrs. B. seems an attentive and agreeable person

Friday, 30th July: Went to town after dinner. Met Mr. Brody, went with him to his agent, Mr. Philip, Little Collins Street, & all three of us called on Mrs. Ferris (where Dr. Ifia (13) lived). I offered her 3 guineas a wk. for two rooms & board which Brody & Philip both said was quite enough, but she stuck out that I should not have my boots cleaned for the sum, & was not at all inclined to be accommodating, so I gave it up

Saturday, 31st July: Went to town & engaged for unfurnished rooms 1st floor, in Russell Street, near Collins Street East at £10 per month, including breakfast & tea Mr. Brody introduced me to Dr. Wilkie (14) who was very polite & invited me to call on him.

Monday, 2nd August: Mr. Brody drove me up to Prince's Bridge—whence went to Sandridge by conveyance. Went before the Medical Board—was kept waiting for more than half an hour before any one was called in. I was left until the last but one. Present—Dr. McCrea, Dr. O'Mullane, Dr. Youl & Dr. Howitt—none of them except Dr. McCrea addressed a word to me (15).

Wednesday, 4th August: Went to the Hospital & saw Verrey (16). The House Surgeon ordered a porter to show me into his ward, where I found him, under the care of Mr. Garrard (17). Went down by rail & on board ship took splint off Vanderhagen's arm & found olecranon united and with fair amount of mobility in his elbow joint. It has been in splints 6 weeks & 3 days; the accident occurred 7 weeks & 3 days ago. Waited until ½ past one for the Captain, then dined on board. Met Mr. Worry, Druggist,

of Richmond, and Mrs. W., Mr. —, [sic] of Flery Creek, practising medicine but unqualified, & two ladies. Ordered a druggist of Waine, Collins St., a brass plate & painting on wall & door. [Capt.] Gardner promised to call & pay me my money to-morrow. Received note from Mr. Barker requesting me to come to an operation to-morrow at Hosp.

Thursday, 5th August: . . . At 12½ went to Mr. Barker's—lunched with him & Mr. Pugh: then went to the Hospital to operations—assisted at amputation through the thigh—& saw a private patient on whom Mr. B. had operated for hæmorrhoids with the écraseur. Dr. Pugh asked me to go to a consultation with him on a case of eye disease to-morrow at 11 a.m. He promised to call for me—fee to be a guinea.

Friday, 6th August: . . . Ordered a stand for my microscope (18). Pugh called for me soon after 11 to visit his patient with him. A youth about 19 or so, apparently in good health. Left eye: iris torn through at the lower and outer part, the tear extending from the pupil to the corneal margin of iris, the lower end of torn iris on a plane posterior to the upper [sketch], the whole pupillary aperture occupied by opaque capsule. Had several needle operations performed long ago for "cataract"—but could never see since—more recently Mr. Pugh attempted to draw out the opaque capsule with the canula forceps; but found it too firmly attached to the iris. Has not the least perception of light with the eye, wh. is somewhat hard. R. eye: 6 mos. back found one morning a sudden cloud, red like a film of blood, in the sight. Recently under treatment vision is improving. Has never had pain in either eye. Can count fingers but cannot see my features distinctly—globe of natural tension—cornea & anterior chamber natural—iris preternaturally active—no opacity behind pupil—appears to me to be a case of simple extravasation of blood—probably behind retina. Should no recurrence take place I think sight will be recovered. Received £1 for attendance

Saturday, 7th August: De Gruchy sent the brass plate, paid for it £2.5.0. Went on board "Queen of the Seas". Dined there & Gardner paid me my money £18.15.6, just £2 short of what I expected. Saw Vanderhagen—arm is very well, but motion of elbow joint at present is limited Took an omnibus out to Flemington to Mr. Taylor's—had tea & then went to Mr. Mitchell's Had wine & cigars Mr. Taylor tells me that he has recommended a Mr. Clarke to consult me about his eyes—cataract is suspected in one

Sunday, 8th August: . . . Had dinner & afterwards walked down to St. Kilda & called at Brody's. Walked down on the beach with the Misses Brody & Miss Hart, a Jewess, and withal a somewhat "fast" young lady. However I made myself tolerably agreeable, being determined to cultivate as much acquaintance as possible. Had tea & cigars at Brody's & came home by conveyance.

Monday, 9th August: Wrote a letter to Dr. Gaunt of Launceston, Tasmania. George the steward came to see me—he is much better: passed an instrument for him & put him again on Quinine & Vin. Ipecac. Ordered shower-bath 3 times a week I spent the evening with Mr. & Mrs. Woods. Took my flute & some music. Mrs. Woods played the piano parts. She is a little out of playing at sight, but must have learnt the instrument well

Wednesday, 11th August: . . . Went to Supreme Court. Hunter's case did not come on—may to-morrow. Evening had a fire—read & practised the flute

Friday, 13th August: Went round the Hospital with Mr. Barker—afterwards went to Supreme Court & heard case of [Dr.] Hunter v. Love (19) Afternoon a patient came, sent to me by Mr. Gale. He is a photographer; he has double vision, one image appearing above the other and a little obliquely, the right eye cannot be thoroughly abducted, there appears to be slight internal strabismus of that eye. As it was growing dusk when he called I could not make a very complete examination. Lost 2/- at cards. Expenses—Rail 1/- Cards 2/- — 3/-d.

Sunday, 15th August: Mr. Asquith called to consult me about his eyes. Recommended by Mr. Gale—Fee £1. After dinner walked out & called on Mrs. Alexander, Williams Road, Prahran. Saw Mrs. A. & two daughters—had a glass of wine, did not ask me to stay to tea, wch. I quite meant to have done. My reception was certainly not so warm as I expected from a sister of Mr. Friend . . .

Monday, 16th August: . . . Called on Dr. Wilkie. Returned Australian Medl. Journals & left card. Called on Pugh & borrowed Medical Times Apl. 3rd. Lunch there to-morrow . . .

Tuesday, 17th August: . . . Lunched at Pugh's—met 3 old ladies besides Mrs. P. . . .

Wednesday, 18th August: Returned Lancets (1 month) to Pugh. Dinner—after wch. walked out to Richmond & called on Dr. Wilson. Dr. W. says that I must advertise my name & residence—he did so (20) . . .

Thursday, 19th August: Clothes sent home from wash—3/-d. Wrote a letter to Mr. Gilbert Wright, Solicitor, Sydney, enclosing Mr. Geo. Rudall's letter of introduction (21) . . . (Figure III.)

Friday, 20th August: Went to Hospital & saw some of Barker's patients with him. I see lotions used in Ulceration of the cornea—Arg. Nit., Plumbi Acet. etc.—A stump of the thigh very badly dressed etc. etc. Mr. Pugh called, talked over professional matters & asked me to go to an operation to-morrow—to take the chance of a fee according to the result—promised to go. After dinner walked across Emerald Hill and down to St. Kilda. Tea at Mr. Brody's. Mr. B. not at home, only the young ladies—they sang some duets, & I left about 1/2 past 8.

Saturday, 21st August: . . . Mr. Asquith called—no fee this time—one will be due if he comes again. Went with Pugh to help at a needle operation on Mr. King of Tasmania. Afternoon went for a walk round the University.

Sunday, 22nd August: At ten o'clock went to Hospital—after waiting some time Mr. Barker came—saw his patients with him—asked him to let me know if he should have any cases of malignant disease. After dinner walked to St. Kilda intending to call & take tea at Mr. Wood's. Just before I got there Mr. Brody and his daughters overtook me, in their carriage, so I went to their house & stayed to tea. Met a Mr. Haley (?) [sic] of whom I received a very unfavourable impression . . .

Monday, 23rd August: Stayed in until 10 o'clock—no patients—I am dreadfully tired of this lonely life, I never felt so dismal before. . . .

Tuesday, 24th August: Mr. Barker called with a Mr. Clark (?) [sic]. Lunched & dined with Mr. B. & went with him to the Yarra Bend asylum (22). He invited me to go to an operation (extraction of cataract) tomorrow at Williamstown.

Wednesday, 25th August: Awoke with a dreadful headache & could not take any breakfast. Mr. Barker called at 9 1/2 a.m. & walked down to the railway station—Mrs. B. & 2 of the children also went to Williamstown. Pugh & myself completed the party. The cataract was got out—but the iris was much torn, scratched & cut, & the corneal section was not a model one. Some vitreous was lost but not enough to prevent sight—so far as that has to do with it. Had a basin of soup in the middle of the day, notwithstanding that I was hardly able to eat it. Afternoon Mr. Brody called and asked me to go to St. Kilda & see Mr. Philip as a friend. Found him suffering from the commencement of an attack of Rheumatic fever.

Thursday, 26th August: . . . Afternoon left Medical Directory at Barker's, also Haydn's Symphonies—"When the Night Shadows Close" and Florillo's pieces from Mozart for Mrs. B. Evening Mr. Barker called & told me to get cases ready for Australian Medical Journal & made an appointment for me at 10 to-morrow also, to go & see Mrs. Lowtil of Williamstown. Got case of the Equimaux [sic] written out. [See Rudall, 1863b; no reason is apparent for its publication, five years later in a rival journal. Rejection was unlikely.]

Friday, 27th August: Met Barker at the Hospital at 10 & went & helped him to dress his patient—Charnock. Pugh called for me soon after 11—went with him to assist at his operation on Mr. King's eye—he did not get much capsule out. After dinner went down to Williamstown to see Mrs. Lowtil for Mr. Barker . . .

Saturday, 28th August: Mr. Barker called for me to help to dress the man with compd. fracture of arm [Charnock]. Afterwards drove to Sandridge and Emerald Hill with him. Lunched at Mr. Barker's & met Captain Ross, R.N., an Arctic officer, & seemingly a very good sort of fellow. Evening finished writing out my case (? cases) for Australian Medl. Journal. Called on Croad the druggist & gave him my address. Expenses: Acid Nitric. Bot. & Test Tubes—5/-.

Sunday, 29th August: Mr. Barker called for me to help to dress the broken arm. Went to St. James' but could not find Mrs. Barker's pew as she was not there at the time (23). Saw her after service and walked home with her. After dinner it rained so I had a fire soon after 4 o'clock & did not go out for the rest of the day. Mr. B. was much pleased with the Dean's sermon.

Tuesday, 31st August: Mr. Barker called for me & we went with Pugh to remove necrosed bone from the fractured arm. I gave the chloroform. Evening went to Princess Theatre (24) with Mrs. Barker, Mrs. Hunt & Dr. Reid of Queenscliffe . . . Expenses—Dinner 1/6. Hat at Theatre 6d—2/-d.

Wednesday, 1st September: . . . Mr. B. spoke to me about the Lying-In Hospital again (25). I cannot bear the idea of it, I fear if I take it I may be a loser to a considerable extent of what I may do by following a bolder plan, and standing on my own bottom for a few months. Smale rather advises me against taking it. Nihil is doubtful. Went to Williamstown, taking Mrs. Hunt with me. Saw Mrs. Lowtil for Mr. Barker—also saw a patient of Mr. Hunt's (suggested hydrocele of the epididymus). Assisted Mr. H. to tap & inject it. Dined at Mr. Barker's . . .

Thursday, 2nd September: . . . Mr. Barker called, went with him & helped to put his patient's arm in a splint . . . Nothing more has been said about the Lying-In Hospital . . .

Friday, 3rd September: Mr. Barker called—went with him to Charnock. At 2 o'clock went to Hospital to see an amputation—the first by Garrard. The tourniquet—Skey's—slipped off the femoral—Barker caught the artery in his fingers. Went with Pugh to see his two eye cases . . . Gave Nihil a prescription—he is suffering from dyspepsia attended with much secretion of gas by the stomach.

Saturday, 4th September: Went to Charnock alone—also to Williamstown, Mr. Barker being engaged at a midwifery case. Called on Mr. Hunt to tell him that I had not found spermatozoa in the fluid of the encysted hydrocele . . . Very unwell. Had a fire. Expenses—Pills 6d. . . .

Tuesday, 7th September: Dined with Mr. & Mrs. Barker and spent evening. Played duets with Mrs. B. In the course of the evening saw Garrard.

Thursday, 9th September: Sent a letter to Mr. Joseph George—Post Office, Brunswick—in answer to an advertisement for a Medical Officer for the Lodge of the Loyal Rose of Brunswick. Visited Charnock for Mr. Barker & opened abscess. Saw Smale—recommended him a sulphate of zinc lotion for his eye . . .

Friday, 10th September: Mr. Barker called, went with him to Charnock. Mr. Josh. George called about the Loyal Rose of Brunswick Lodge—says the Medl. Officer must reside in Brunswick. They give 10/- to 12/6 a head for each member including medicines (26). Went for a walk in the Botanical Gardens in the afternoon . . .

Sunday, 12th September: Went to Charnock with Mr. Barker—Dined at Mr. B.'s & afternoon rode down to St.

Kilda with him. I rode Dandy, he ran away with me several times, & coming home, threw me close to Prince's Bridge, on the St. Kilda side—while running away he made a bolt in to the river, while I was off my guard. I was not hurt in the fall—but quite expected he would have put his off fore foot on my face. I had the reins in my hand until I was nearly or quite on the ground. I lost my hat between the St. Kilda Park Lodge & the turnpike. Some thief made away with it, so I was forced to ride home without one. Expenses—Nil.

Monday, 13th September: Felt sore about the knees and stiff in the back from yesterday's business, but no otherwise [sic] the worse for it. Went with Mr. Barker to Charnock. Bought a white hat. George the steward came up to consult me. Passed an instrument for him Evening went up to Mr. Barker's by invitation & played duets with Mrs. B.

Tuesday, 14th September: Went to Hospl. with Mr. Barker. Received note from Mr. Pugh asking me to see Mr. King with him & Motherwell. Met him & Dr. Motherwell & agreed that Mr. K's left eye offered a chance of being made useful at some future time by an operation for artificial pupil—but there is too much vascularity about the globe at present

Wednesday, 15th September: Performed operation for artificial pupil on right eye of a patient of Mr. Barker's in the Hospital. Went with Mr. B. to pass needle for varicose veins (27) on a patient in N. Melbourne

Thursday, 16th September: . . . Saw the patient on whom I operated yesterday. I believe there is opacity of the lens. He sees more light but cannot distinguish objects & is not at all assisted by a convex lens. Ordered a blister & belladonna. Visited Charnock by myself. Went over (to top of) the sugar works with Mr. Barker & went to Mrs. Lowtil with him. Wrote out his case of fracture at base of skull & took it up (28). Dr. Wilkie brought me the 1st proof of my case of cutting into the perineum. Corrected & returned it [see Rudall, 1858]. Eve, had a fire.

Friday, 17th September: Went to Charnock with Mr. Barker. Gave him a yard of the elastic plaster

Saturday, 18th September: Went to Charnock alone—then went to Supreme Court to hear Smith's trial for procuring abortion—it did not come on

Sunday, 19th September: Called up at 3 o'clock a.m. by Mr. Barker to go to a case of gun-shot wound of the thigh. Gave chloroform & assisted otherwise in the amputation (Martin Quilligan). It was about 5 miles in the country at Mr. Bullivan's, the lad being a servant of his. Went with Barker & Pugh to assist in operation on Mr. McLean—lodging at Mrs. Duncan's, Royal Terrace. He has fistula resulting from extravasation of urine. His perineum was cut into, but the urethra was not opened, although there was a catheter in the bladder. Assisted Mr. Barker in operation for entropion on Mrs. Lowtil of Williamstown. Paid Railway & boat fare to Williamstown for self, Mr. Barker & his two children. Dined at Mr. B's Expenses—Railway & boat fares—7/6d. ret'd.—nil [an amendment—see 23rd September.]

Monday, 20th September: Visited Charnock alone, then went to the Supreme Court about a quarter to ten & stayed there until just six without once going out. Dr. Smith was acquitted (29).

Tuesday, 21st September: . . . Went to Philharmonic Oratorio "St. Paul" (30). Wrote a letter to the "Argus" on the use of the speculum commenting upon Judge Williams' remarks to the jury in Smith's case.

Wednesday, 22nd September: My letter to the Editor of the Argus does not appear in that paper. Sent it with slight alteration to the "Herald" Went to Yarra Bend Asylum with Mr. Barker, also to see Quilligan. Also to North Melbourne to case of needle for varicose veins. Dined at Mr. B's Played a duet (flute & piano) with Mr. Beale. Expenses "Argus" 6d.

Thursday, 23rd September: My letter does not appear in the "Herald". N.B. Mr. Barker paid me yesterday 7/6d.

for fares paid by me on Sunday last Afternoon went down to Mrs. Lowtil with him on the understanding that I was not to receive a fee. She is much better since the operation for entropion

Friday, 24th September: Evening (about 11 o'clock) Mr. Barker came to tell me he had an amputation of thigh at the hospital. Went up there, assisted in giving chloroform & took charge of the femoral artery—Childs & Capt. Ross were there, afterwards we three went home with Mr. Barker & had cigars & brandy & water.

Saturday, 25th September: Went to Charnock alone. Took notes & sketch of case of epithelial cancer of head—examined the discharge microscopically. Examined urine for Gillbee, under the microscope (at the Hospital).

Sunday, 26th September: Visited Charnock with Mr. Barker, rode out to the Asylum & attended divine service there. Then went to Quilligan with Mr. Barker. Afternoon went down to Mrs. Lowtil with him & Mrs. B. . . . Evening examined discharge from epithelial cancer, under the microscope Expenses—Toll 3d.

Monday, 27th September: . . . Afternoon went to Mr. Barker's and examined eye of a son of Dr. Robertson (?) (sic), wounded 4 years ago with a nail. The lens is absorbed, & opaque capsule occupies the pupil, so that the boy has no sight. Advised an operation. Also examined with ophthalmoscope (31) eyes of a patient from the Hospital. Old iritis & patches of pigment deposited on capsule of lens in each eye. Spent evening there & had some music.

Tuesday, 28th September: Was present at an operation of Mr. Barker's in the Hospital when the patient died from the chloroform (given by the House Surgeon) (32). Dined at Mr. Barker's & afternoon I made post-mortem examination of the body Expenses—Brandy 6/-d.

Wednesday, 29th September: Rode out with Mr. Barker at 7 a.m. to Quilligan & dressed his stump Went to the Hospital & gave evidence on inquest on man who died from chloroform. Breakfasted & dined with Mr. Barker—he handed me the fee that he received from the Coroner—£3.3.0. Dr. Youl requested me to make a p.m. exam. for him at Emerald Hill—found 2 aneurisms of the aorta. Gave evidence. Received Fee £3.3.0 Expenses—Cigars 4/- P.M. Twine 1/-—5/-d.

Thursday, 30th September: Visited Charnock with Mr. Barker. Cashied cheque (Dr. Youl's) at Bank of Victoria. After dinner went to the Cattle Show. Evening Mr. Barker came in & we examined secretion from epithelial cancer Expenses—Dinner 2/6 Admission to Cattle Show 2/6—5/-d.

Friday, 1st October: . . . Went to Mr. Barker's & examined a patient of Mr. Dyer's, large ulceration of cornea & loss of lenses (?) after purulent ophthalmia—treated by Jacob (33). Granular lids & vascularity of cornea. I pointed out the line of treatment to Mr. Dyer & told him that if any portion of the right cornea remained clear after irritation had subsided I would make an artificial pupil. The patient had perception of direct light only. Went to Mrs. Lowtil with Mr. Barker

Saturday, 2nd October: Went with Mrs. Barker, Mrs. Smith, Miss Scott (34) & Miss McCrae (? McCrea) to Robertsons' & to Wilkies' for music. Afternoon saw Gillbee who asked me to come up to his house in the evening. Spent a couple of hours with him.

Sunday, 3rd October: . . . Went to St. James' Church. Dined & had tea at Mr. Barker's. Pugh called there at tea-time & desired me to give him a receipted memorandum of my attendance with him on Mr. King—charging £5.5.0. Expenses (collection at church) 1/-d.

Monday, 4th October: Visited Charnock alone. Evening went with Mr. & Mrs. Barker to Mrs. Scott's to tea. Met Miss Scott, Miss McCrae, Mrs. & Miss Ferris. Had music & singing—home about 11.

Tuesday, 5th October: . . . Went to asylum, met McCrae & Eades. Dined with Mr. Barker & went in evening to an amputation at the Hospital by Mr. Knaggs.

Wednesday, 6th October: . . . Went to Hospital. Mr. Barker performed Wutzer's operation (35) for radical cure of inguinal hernia. Went with Mr. Barker to Dr. Cowie of Collingwood, & assisted Mr. B. in removal of eyeball of a little boy 7 years old & lent him my instruments.

Thursday, 7th October: Showed the eye (in section) removed yesterday to Mr. Barker & Dr. Cowie, also showed the tissues of it under the microscope. Went to see opening of Parliament with Mrs. Barker & Mr. & Mrs. Bunny. Went to Hospital to operations & assisted Mr. Barker in operation for staphylococci [sic]. Dined & spent evening at Mr. B's—prescribed for a patient with epididymitis. Had music. A Mr. Osborn came about his child with squint, recommended by Jones.

Friday, 8th October: Saw Mr. Dyer at Hospital yesterday, gave him my address—gave it also to Dr. Cowie. Visited Charnock with Mr. Barker. Mr. Osborn brought his child at 9½ a.m.—told him I would do the operation & provide the attendance of another surgeon for 12 guineas. He promised to let me know this evening whether it shall be done to-morrow morning. Went to the races—fell in with Brody, two of his daughters & Mr. & Miss Hart. They & Mr. Philp came in & had some brandy & water & stayed about half an hour.

Saturday, 9th October: Mr. Brewer called to ask me to give chloroform for him in a case of strabismus. I went & found the same man who brought his child to me yesterday. When asked, told Brewer my fee was 2 guineas. Rode Brody's pony to the races. Dined at Barker's. Met Mr. Du Pré, Mr. & Mrs. Horne, Mr. Wallace, Mrs. & Miss Scott. Went altogether to the opera (*Fra Diavolo*) (36). Had an oyster supper & home. Expenses—Gave Brody's man 1/- Race Course 2/6, Lunch 1/6, Race Card 6d, Opera 5/-—10/6d.

Sunday, 10th October: Visited Charnock with Mr. Barker & then went with him to assist in an operation for epiphora from obstructed nasal ducts on Mrs. Dyer (?) [sic] of Spencer Street. Dined with Pugh & afterwards went to Flemington with him to see a case of cataract. Evening rode Fanny down to Brody's & had tea. Expenses Paid for Pony 7/6, Turnpike 3d,—7/9d.

Tuesday, 12th October: Visited Charnock with Mr. Barker, also saw with him Mrs. Dyer on whom he operated on Sunday . . . Went to Flemington to assist Pugh in an extraction of cataract on Miss Gardiner at Mr. Coots' . . . Brody called & asked me to attend to his 2nd daughter's eye . . .

Friday, 15th October: Went to Mrs. Dyer & to the King Hotel with Mr. Barker. Lent nasal probe to Pugh. Paid Robertson subscription to Ophth. Hospl. Reports 1858 (37) £1 . . .

Saturday, 16th October: . . . Made p.m. examination at Flemington & gave evidence before Dr. Candler the Coroner. Eve, went to Mrs. Dewar's with Mr. Barker & staid 2 hours (from 12 to 2) with the infants. Extracted tooth for Mr. Brody's man: received 2/6d.

Sunday, 17th October: Visited Mrs. Dewar's child (diphtheritic) & assisted Mr. Barker to perform tracheotomy (38). Visited the child with Mr. Barker twice afterwards . . .

Monday, 18th October: Visited Charnock with Mr. Barker. Examined false membrane from throat of Mrs. Dewar's child (dead), found no *oidium albicans*. Examined face and lanced gum for Smale Junior. Barker brought Sir W. Stawell (39) to see the diphtheritic exudation under the microscope. Childs came afterwards to see it—met him at dinner at Barker's—he said nothing about the fee for the p.m. I made at Flemington.

Tuesday, 19th October: . . . Went on with my paper on stricture . . .

Thursday, 21st October: . . . Richards called—went out with him to Brody's & passed a probe through the left canaliculus for Miss Lizzie. The canaliculus is strictured

& on removal of the probe she fainted away. Dined at Barker's, met Dr. Robertson of Queenscliff & Cooke of the 40th.

Sunday, 24th October: Visited Charnock with Mr. Barker. Went to St. James's. Dined at Mr. B's & then went to Studley Park & to Yarra Bend.

Tuesday, 26th October: . . . Dined by invitation of Mr. Barker at the Medical Society's Annual Dinner at Menzies' Hotel.

Wednesday, 27th October: . . . Saw Van Hermert about a case of cataract in a child.

Thursday, 28th October: . . . Present at amputation of an arm in Hospital. Dr. Dwyer requested me to see a case in consultation with him at N. Melbourne (partial amaurosis) received fee £1.1.0.

Sunday, 31st October: . . . Performed 3 operations in Hospital—2 artificial pupils & removal of remains of lens. Went with Pugh to see Miss Gardner . . .

Monday, 1st November: Went to Williamstown with Mr. Barker & operated on Mrs. Lowtil for art. pupil by excision . . . Evening went to Mr. Barkers—met Mrs. Conolly, Miss Howitt, Mr. Bateman, Howitt &c.

Tuesday, 2nd November: Went to Hospital & saw the patients on whom I operated . . . Eve, went to opera—*Il Trovatore*—at the Princess (40) . . . Called on Dr. Hunter about advertisement for partner in a Practice (41).

Wednesday, 3rd November: . . . Barker performed Wutzer's operation for hernia in Hospital.

Thursday, 4th November: Went to Hospital & assisted in removing end of femur (after amputation) by Mr. Barker. Afternoon went to a post mortem with him. Examined & prescribed for Mr. Brody (urethritis), he is to come again to-morrow—Inj. Zinc Chlor.

Friday, 5th November: . . . Operated on Mrs. — child—tongue-tied.

Saturday, 6th November: 8 a.m. Went to Gaol to see Thompson & Gibbs executed for murder (42). 10 a.m. compressed femoral artery & assisted Mr. Ford (43) in amputation of thigh of patient with diffused popliteal aneurism [?] and sloughing. 1 p.m. dissected body of Thompson aet. 34 while Mr. Barker did that of Gibbs, aet. 26.

Sunday, 7th November: . . . Went to Mr. Ford's to examine the aneurism of the limb he amputated yesterday. Evening went to St. James' Church. Expenses—Nil.

Tuesday, 9th November: Went to Hospital & dissected old fracture of spine to make a preparation. Dined with Mr. Barker & went to Williamstown with him. Evening made an attempt at getting a fire, but after an hour's blowing it went out. *Mem.*—not to pay for it.

Wednesday, 10th November: Very poorly with toothache & swelled face . . . Mr. Thompson [sic] (44) came in & sat a while . . .

Thursday, 11th November: . . . Went to Hospital to see removal of a tumour & amputation of fore arm by Gillbee . . .

Wednesday, 17th November: Went to Williamstown with Mr. Barker—coming home the little boat got on fire & we had to be taken off by some row boats & back to Williamstown (45) . . .

Thursday, 18th November: Examined child from Williamstown with ophthalmoscope. Has probably hereditary syphilis. No opacity of lenses. Recd. 2 Medical Times but no letters from England. Expenses—Boots Soled 10/-d.

Saturday, 20th November: Saw a young woman aet. 26 (Mary Hobart) in Hospl. upon whom Mr. Gillbee (46) had extracted a cataract (query?) [sic] on the left eye. The

right lens is quite clear but she informed me that the same operation is about to be done on it.

Sunday, 21st November: Assisted Mr. Barker in removing bony growth from distal phalanx of thumb in a young woman, a governess (gave chloroform &c.) . . .

Monday, 22nd November: Very unwell from heat &c. Examined urine for Dr. Thompson. Did not go out of the house until after 6 p.m. Expenses—Dinner 3/., Ginger beer 6d—3/6d.

Wednesday, 24th November: Went to see Mr. & Mrs. Lowtill alone. Afternoon Charnock came to have his arm dressed. Expenses—Lent Mr. Barker 2/., To Williamstown 3/., Dinner 2/6d. 2/- returned by Mr. Barker. 7/6d.—2/-—5/6d.

Friday, 26th November: . . . Dr. Motherwell sent me a patient, Mr. Dashwood . . .

Sunday, 28th November: . . . Mrs. & Miss Scott & self dined at Barkers' . . .

Monday, 29th November: Went to see Christian Von Sec executed (47). Evacuation of urine took place while he was suspended. Made p.m. for Dr. Candler. Went to a p.m. with Mr. Barker at Brunswick . . .

Tuesday, 30th November: Gave evidence at Inquest, Dr. Candler at Cremorne. Received £3.3.0. Went to Williamstown with Mr. Barker. Mr. Dashwood came to be seen. Expenses—Conveyance 1/., Dinner 2/-—3/-d. (48).

Wednesday, 1st December: The diary concludes with this heading, and with one page of the small volume remaining.

Notes on the Diary.

(1) "Queen of the Seas", a sailing ship (square-rigged on all three masts) of 1337 tons; Master, Captain Charles Gardner. In his nineteen years as a master of ships sailing to Australia, Captain Gardner had never experienced such delay due to a succession of calms. The passengers were Mr. and Mrs. Taylor and family, Mr. and Mrs. Osborn and family, Mr. and Mrs. Christal and family, Miss Blyth, Miss Kingston, Miss M. Jones, Messrs. Richards, Brophy and Barnes, and about 36 others "in the second cabin". At the conclusion of the voyage they expressed thanks to the Captain and officers for their good treatment.

(2) William T. Coster, M.R.C.S., Eng. L.S.A. (1855), had worked with Rudall at St. Pancras Infirmary and Workhouse in the previous year, and the two maintained a regular correspondence. On October 14, Rudall sent him a draft for £10 without comment as to the reason.

(3) It was becoming a medical fashion to recommend a voyage to Australia for phthisical patients, and events such as Mr. Quick's death were probably occurring with increasing frequency. Dr. Alexander Hunter (see Note 19) is perhaps one of the earliest known Victorian cases to have survived (1849 or earlier), and S. D. Bird also lived to advocate the practice most strongly. His chief opponent was William Thompson, who severely criticized it on several grounds (Gandevia and Ford, 1953).

(4) Rudall's "sick headache" of this day and of August 25 are suggestive of migraine. He was also "very unwell" on September 4 and November 22, and the casual nature of these remarks, in contrast to the detailed account of his illness in May, suggests that he may have been subject to a recurrent disorder too familiar to warrant a full account.

(5) Probably William Mackenzie, a famous Glasgow ophthalmologist (1791-1868).

(6) Edward Barker (1818-1885) is a figure of considerable importance in Victorian medicine, and his friendship must have been tremendously valuable to Rudall. Sometime dresser to Liston, Barker was Lecturer in Surgery in the University of Melbourne from 1864 to 1880. "An old colonist, a good surgeon, an agreeable teacher, a jolly fellow and a pleasant companion. He was rich once but he died poor, and everybody was sorry for his misfortune . . ." (J. E. Neild, *Speculum*, May, 1900.) His last years were indeed tragic, for in addition to two lawsuits which did not enhance his reputation, his wife and two sons all died in the eighteen months prior to his own death. Ten years older than Rudall, he is rarely referred to in the diary as other than "Mr. Barker" or "Mr. B." (cf. Pugh, Brody, Gillbee). It is

surprising that in his numerous visits to Barker's home, Rudall never refers to meeting the famous D. J. Thomas, although Thomas and Barker were at one time in partnership. Rudall studied under a Dr. Barker at St. Thomas's but I know of no evidence that the two Barkers were related.

(7) William Russ Pugh, formerly of Launceston, was the first to employ ether anaesthesia in Australia; a full account of the occasion and of the man are given by Crowther (1947). It would appear that Pugh also kept a diary on his voyage to Australia in 1835.

(8) Dr. W. McCrea, Chief Medical Officer to the Government, but also engaged in private practice. He played no small part in the development of Victorian medicine. His public work appears to be characterized by a fearless honesty of purpose, although his views were frequently opposed to those of many of his professional brethren. Nihil appears to have been a solicitor; Archer was soon to become Registrar-General.

(9) J. B. Motherwell, an honorary physician at the Melbourne Hospital. Having qualified in Dublin and Glasgow, Motherwell had practised in Ireland, New Zealand, Sydney and Port Arthur. He was the immediate past president of the Medical Society of Victoria (1857).

(10) Richard Eades, B.A., M.D., was a kindly physician, full of the humour of the Irish and popular at medical dinners as an after-dinner speaker and a singer of ballads. Sometime Mayor of Melbourne and Lecturer in *Materia Medica* and Therapeutics at the University, he was one of two additional honorary physicians elected to the Melbourne Hospital in 1858. The other was W. H. Cutts, M.D., Motherwell and A. C. Brownless making a total of four honorary physicians. There is evidence that Eades taught pupils prior to the foundation of the Medical School at the University (Gandevia, 1954).

(11) No doubt to the goldfields, which were settling down. Although gold was becoming less easily won, there were excellent opportunities open to skilled medical practitioners—and quacks. A Dr. J. McKenzie had been registered in 1857.

(12) I have not been able to discover its situation and hence its lack of attraction. After his Russell Street lodgings, Rudall practised successively at 147, 168 and 121 Collins Street East, 61 Spring Street, and 57 Collins Street. His home at the time of his death was in Armadale.

(13) Dr. Solomon Ifla, a member of the Medical Society, was appointed Coroner at Woods' Point at or about this time.

(14) David E. Wilkie, prominent in three of Victoria's early medical societies, and a notable member of the Presbyterian Church, had been practising in Melbourne since 1839. In 1858 he was President of the Medical Society.

(15) *The Australian Medical Journal* incorrectly gives the month of Rudall's registration as July (Volume III, page 325). There were 557 names on the list of legally qualified medical practitioners for 1858 for the Colony of Victoria (under a New South Wales Act), but after the *Medical Act* of 1862, when the Medical Register for Victoria is commenced, only 287 names appear. On this register, 11 were Fellows of the Royal College of Surgeons of England. Arthur O'Mullane was one of the honorary staff of Melbourne's first public hospital in 1840 (Graham, 1952) and a foundation member of the Port Phillip Medical Association in 1846. Dr. Richard Youl is better known in his capacity as City Coroner and for his part in the controversy regarding sepsis at the Melbourne Hospital. Dr. Godfrey Howitt had been practising in the Colony for eighteen years, and was perhaps the leader of the profession at this stage.

(16) It is unfortunate, in view of its medical interest, that this case history could not be found despite careful search of the available records at the hospital. Perhaps he had a carcinoma of the lung with spinal metastases. Surprisingly enough, Rudall does not record his ultimate fate.

(17) William Garrard, M.R.C.S.E., had lately resigned a position as resident surgeon to the Melbourne Hospital in order to contest an election for two additional honorary surgeons to the hospital. He and Robert Knaggs were successful. Barker and Gillbee completed the surgical staff, having been elected in 1855.

(18) This was provided by the gentleman who undertook most of the furnishing of Rudall's lodging. Rudall's enthusiasm for microscopy becomes apparent from his journal; it appears to have impressed his senior colleagues.

(19) Hunter sued for fees owing in regard to an operation performed on a relative of Love. It appears that in twenty or thirty minutes Hunter removed the lower jaw for a recur-

renal cancer of the mouth, the operation taking longer than usual because of some spread to the upper jaw. The patient insisted on having chloroform, although Hunter considered it a less dangerous operation without it. Medical witnesses said the operation was brilliantly done, but the patient succumbed. Verdict for plaintiff. Little is known of Alexander Hunter, but in earlier years at least he was at odds with such leaders of the profession as D. J. Thomas. He appears to have taken pupils (probably apprentices) into his practice; William Gillbee admitted to studying under him (Gandevia, 1954). See also Note 3. The case of the photographer with squint was published by Rudall (Rudall, 1860b).

(20) Rudall does not appear to have done this.

(21) This mention of George Rudall, the surname being written precisely as James Rudall wrote it in his signature, is an important link in the evidence establishing Rudall as the writer of the diary (Figure III). What relationship existed is not known; George was not the name of James's father.

(22) Barker, McCrea and Eades were Official Visitors to the Asylum. Rudall's interest, apparently stimulated by some London hospital experience, is indicated by his performing autopsies there (Rudall, 1862) and by his translation of a German work on mental diseases (1869a). It is a pity that Rudall does not record more detail of these visits, for in January, 1859, a Select Committee began to take evidence on the state of the Lunatic Asylum, with particular reference to the use and abuse of methods of restraint. Furthermore, by October 19, 1858, Barker had completed his report on the strange case of Dr. Carr, a medical practitioner with some experience in lunacy, who had been committed to the Asylum as a patient in 1857.

(23) Mrs. Barker, who clearly impressed Rudall, is notable for her part in the founding of the Lying-In Hospital in 1856. Built in 1839, St. James's Church, or Cathedral, then stood near the north-west corner of Collins and William Streets, but it was moved in 1914 to its present location near the Flagstaff Gardens. The Dean was the Very Reverend H. B. Macartney, D.D., who held office from 1851 to 1894.

(24) Excerpts from several operas, including Wallace's "Maritana", were presented with, of course, the inevitable laughable farce. The evening was a benefit for one of the performers, Miss Octavia Hamilton, "on the occasion of the great loss recently sustained by her owing to a calamitous fire occurring at her residence". His Excellency the Governor and other notables were present—"he was a fortunate individual who could secure even standing room".

(25) This is the first reference in the diary to what is probably the appointment of the first resident medical officer to the Lying-In Hospital. Dr. James Barrett obtained the position. Later, he married the Matron, the late Sir James Barrett being their son.

(26) This appears to be a good fee. Shortly after this, club practice fell into disrepute, especially when the system of inviting tenders from doctors for these positions became common—leading, of course, to competitive reductions in the fees. Five shillings per head was considered a minimum in subsequent years. By 1862 the whole problem of lodge practice had become a matter of conflict and controversy, and this persisted well into the present century. Possibly Rudall came to regard this minor setback as a fortunate occurrence in some respects.

(27) Probably a technique based on subcutaneous ligation without exposure of the vein.

(28) No doubt this refers to a case report by E. Barker, "Case of Fracture at the Base of the Skull" (*The Australian Medical Journal* (1853), 3: 265).

(29) The evidence for the Crown rested on the patient's statement. At best it was slender, but it became all the more so when Miss S. stated that the "sharp instrument" produced in court by the prosecution was not the type of instrument Smith had used. The defence submitted that the actual instrument used was a speculum, employed to ascertain whether in fact Miss S. was pregnant. The medical evidence was not unanimous in regard to the value of the speculum in the diagnosis of pregnancy, but His Honour gave it as his opinion that it was a reasonable procedure. No motive was apparent. The prisoner was wisely acquitted, and his Ointment and Vegetable Pills continued to be advertised in the *Argus* regularly.

(30) The Melbourne Philharmonic Society's fourth subscription concert. The soloists were Miss Octavia Hamilton, Mrs. Batten, Messrs. Ewart and Farquharson. Gallery, 2s. 6d.

(31) Helmholtz described his complicated "eye-mirror" in 1851. Within a year Donders was using a mirror with a central unsilvered area, and a technician soon introduced a revolving holder for several lenses. Scepticism regarding its value was still prevalent in 1855, the year von Graefe described the changes of renal retinitis and glaucoma (Sorsby, 1933). It came into more general use after the first International Ophthalmological Conference in 1857. I can trace no link between Rudall and the notable British workers (Spencer Watson, William Gowers, William Bowman), nor is there any direct evidence that Rudall visited the Continent at this stage of his career. This is the earliest reference to the use of the instrument in Australia which I have been able to find. A. S. Gray, regarded as the first colonial specialist in eye and ear diseases, is said to have arrived in Victoria in 1856, but his name does not appear in the Medical Register until the middle of 1859. With his qualification (M.R.C.S., Eng., 1854), it would be surprising if he had not registered on arrival; certainly he did not become a prominent figure in colonial medicine for several years. On the evidence available at present, it is reasonable to regard Rudall as the first person in the colonies known to have used the ophthalmoscope.

(32) I can find no reference to this death in the *Argus* or in *The Australian Medical Journal*.

(33) Dr. Jacob advertised himself regularly as an oculist; almost certainly he was a quack.

(34) In 1862, at Richmond, Rudall married Georgina Gordon Scott, aged thirty-two years, who had come to Australia from Edinburgh in 1840. A certain document relating to her shows her father's occupation as "Writer to the Signet", a Scottish term referring to a branch of the legal profession for which there was no Australian equivalent. Possibly he followed no occupation in Melbourne, or perhaps his family emigrated after his death. Certainly there is no reference to him in Rudall's diary, although Mrs. and Miss Scott are mentioned several times. Apart from these minor coincidences, there is nothing to identify the Miss Scott of the diary with the future Mrs. Rudall. Although six children were born of the marriage, only two reached adulthood—James Ferdinand (born 1867) and Anna Georgina (born 1868). J. F. Rudall graduated in Melbourne in 1889, in the same year as F. H. Langlands, who was to be his parents' chief medical adviser in later years. Subsequently he studied ophthalmology and was ophthalmological house surgeon at his father's old hospital, St. Thomas's, in 1890. He was appointed an honorary medical officer at the Victorian Eye and Ear Hospital in 1913 and served in this capacity for twenty years. He was a most accomplished musician, and it is said that his time was occupied more with music than with ophthalmology. As far as I am aware, there are no living relatives, but my search has not been exhaustive.

(35) Wutzer's operation for the radical cure of hernia involved the blocking of the inguinal canal by invagination of the scrotum.

(36) At Princess's Theatre: "Positively the Last Appearance of the Grand Opera Company . . . Under the distinguished Patronage of His Excellency Sir Henry Barkly, K.C.B., who has signified his intention of visiting the Theatre on the Occasion of the Last Appearance of the Operatic Corps." The Laughable Farce "A Night at Notting Hill" concluded the evening. The opera was "exceedingly well sustained", although "it is not usual for an English nobleman to turn violent somersaults upon a bed as a means of expressing indignation" (*Argus* review, probably by J. E. Neild). The cast included Miss Julia Harland, Mrs. Hancock, Mme. Carandini, Messrs. Farquharson, Sherwin, Hancock and Dunn, and M. Coulon. The standard of Australian theatre at this period was moderately good: some of these names were "not quite unknown overseas". Mme. Carandini ("the Australian Jenny Lind") was already a veteran of the colonial stage. It is perhaps also of interest that the overture to "Fra Diavolo" was rendered by an accordionist at Melbourne's first major theatrical entertainment, on February 21, 1842 (McGuire, 1948).

The main event of the Jockey Club race meeting on this day was the Spring Handicap Steeplechase. Chief interest centred round the water jump, of 18 feet, and surrounded by a rail fence; "a leap more formidable in appearance than intrinsically", remarked the *Argus* reporter. Many horses balked, "owners, backers and others straining every nerve to assist the jockeys in getting the unfortunate animals over". Casualties were numerous. The rider of the winner sustained a dislocated shoulder in a fall, but remounted immediately and overtook the leader. Indeed, "the courage and endurance displayed" by the jockeys was "worthy of special notice". This was the fourth and last day of the meeting, Rudall having also attended on the previous day.

The scene on the course on the first day was described as an animated one. "There were the ordinary number of booths, dispensing an extraordinary number of refreshing fluids . . . there were the bands and the veneered Ethiopians, the merry go round and the swing and all the *etcetera* of a racecourse familiar to most Englishmen from their childhood."

(37) The Royal London Ophthalmic Hospital Reports, first published in 1857, was the first British journal devoted to diseases of the eye to have a continuous existence. One issue of an earlier journal was printed. The "nasal probe" lent to Pugh was probably for the lachrymal duct. It will be seen that on October 21 Rudall passed a probe for Miss Lizzie's strictured canaliculus, a technique which had been reintroduced in modern times by Bowman in 1853 (Sorsby, 1933). Rudall may have introduced it to Victoria, for on October 10 Rudall assisted Barker to perform "an operation" for epiphora as a result of "obstructed nasal ducts", which sounds a more extensive procedure than the mere passage of a probe.

(38) The significance of this case is considered in the biographical section. It may be noted, however, that the word used by Rudall in the entry for October 17 is almost certainly "diphtherite" rather than "diphtheritic", as occurs in the following entry. The disease was comparatively novel in England in 1858, but it had been prevalent on the Continent for some years. Rudall's use of French suggests that he may have first seen the condition in France, and, in fact, it is otherwise difficult to explain his early familiarity with it. It would be interesting to know who first diagnosed the disease in Melbourne.

(39) Victoria's first Attorney-General, and recently appointed Chief Justice.

(40) Highly commended by Dr. Neild. The last night of the season.

(41) This advertisement could not be identified in the *Argus*. Rudall was not uncritical, and it is interesting that he appears to have been impressed with Hunter.

(42) There is a most gruesome and circumstantial account of this event in the *Argus*, Monday, November 8. Both had been convicted of murder at Ballarat; Gibbs had thrown his wife down a 60-foot hole. "The preliminaries having been completed, the convicts, trembling in every muscle, were led to the scaffold; they were both assisted up the ladder. On the drop Thompson was perfectly passive, but Gibbs struggled hard . . . crying out 'Mercy! Mercy! I'm an innocent man; good people, protect me. Oh God! Oh God!'" Gibbs managed to grasp a rail with his tied hands, so that he had to be pushed forward when the trap-door was released; as a result he failed to drop vertically. As he struggled the rope broke, but "he was immediately taken up, nearly insensible, and carried again to the scaffold. As he got there he began to move, so far as to be able to scream, as well as the tightened rope round his neck would permit. . . . The assassin once more swung from the gibbet. He was then two or three minutes in dying."

(43) Frederick Thomas West Ford was Surgeon to the Police Force and honorary surgeon to the Orphan Asylum. Earlier in this year he had presented two papers to the medical Society on popliteal aneurysm, his views being disputed by several of the members, including Barker. The present case is described in a further paper by Ford (*The Australian Medical Journal*, 1860, 5:1). The patient had been treated by pressure with a horseshoe-like tourniquet for six weeks. Pulsation had disappeared from the tumour, but a small patch of gangrene developed. Immediate amputation was performed with the assistance of Rudall and Barker. Ford states that a preparation was made for demonstration to the Medical Society.

(44) William Thomson, M.R.C.S. (Edin.), of South Yarra, probably. There was, however, an unregistered "Dr. Thompson" advertising his practice regularly in the *Argus*. Thomson had just become editor of the *Medical Journal*. The possible significance of Thomson's visit or visits to Rudall is mentioned in the biographical section.

(45) I can find no reference to this in the daily Press.

(46) This is the first occasion in the diary on which Gillbee's name is given its correct spelling. William Gillbee, M.R.C.S. (Edin.), is best known as the first Australasian surgeon to adopt Listerian principles. He was a conscientious worker for the Melbourne Hospital, which he served as an honorary surgeon (1853-1875) and as a member of its Committee of Management for almost another decade (Russell, 1948).

(47) Van Sec had murdered his mate near Castlemaine, "a crime of peculiarly dark nature". Another appallingly graphic but detached account appeared in the *Argus*. The

murderer struggled violently for four minutes at the end of the rope, grasping his trousers in an effort to take his weight from the noose about his neck. However, "the whole proceeding was pronounced by a medical man to have been properly conducted". During his last days the condemned man had been sedulously and carefully attended by a minister of religion, and "it is but charity to hope that some good impression was made on his darkened mind". In more practical tone, the writer pointed out that the practice of performing all judicial hangings in Melbourne, irrespective of the place where the crimes had been committed, adversely affected the city's crime statistics, creating an unfavourable impression in the minds of those who studied them overseas.

(48) It is appropriate to conclude these notes with a brief financial statement, in the same way that Rudall completed every entry in his journal after his arrival in Melbourne.

Expenditure.

	£	s.	d.
Lodgings	40	0	0
Furnishings <i>et cetera</i>	26	15	0
Medical supplies (including ophthalmic reports 20s., conjunctival forceps, 14s.)	2	0	0
Clothing (umbrella 30s., gloves 4s. 6d., hats (2) 40s., shoes 20s., boots soled 10s.)	5	4	6
Miscellaneous (meals, postage, fires, conveyances, amusements, laundry <i>et cetera</i>)	25	3	10
Draft to Coster	10	3	0
	109	6	4

Income.

	£	s.	d.
Fee as ship's surgeon	18	15	6
Autopsies (3)	9	9	0
Consultations <i>et cetera</i> (4)	3	6	0
Anæsthetic	2	2	0
Tooth extraction	2	6	
	38	15	0

These figures are based on the entries for 136 days after Rudall's arrival in Melbourne. Recorded expenses on the day of departure from England amounted to 10s. 6d., and two guineas were received on the voyage for Mrs. Christal's confinement. The figures for the entire period of the journal are as follows: expenditure, £109 16s. 10d.; income, £40 17s. 0d.; net loss, £68 19s. 10d.

However, there is evidence that not all income was recorded, and possibly some accounts which Rudall paid by cheque were not mentioned. The financial arrangements with Barker and Pugh are not clear, but that there was some understanding is indicated by such remarks as "to take a chance on a fee according to the result", "on the understanding not to receive a fee", and by the careful note as to whether Barker's patients were seen "alone" or "with Mr. B."

ACKNOWLEDGEMENTS.

My thanks and, I believe, the thanks of others interested in the medical history of Australia are due to Mr. H. Rolfe Hammett, for the loan of the anonymous diary, which he bought for sixpence in a forgotten second-hand book shop. The comments on Rudall's ophthalmological work owe much to Dr. John Bignell, although he cannot be held responsible for any of the views I have expressed. I am indebted to Professor K. F. Russell, Professor E. Ford, Dr. H. Boyd Graham and Dr. K. M. Bowden for help in various directions, but a study of this nature requires aid from historians and workers in several fields other than medicine. To these and to the staffs of various organisations I would rather express my thanks collectively, lest in listing them individually I should be guilty of some inadvertent omission. However, I would particularly thank Miss M. Booth, of the Medical Society Library, Miss Beverly Geary, and the staff of the Melbourne Public Library for much of the more tedious work involved.

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APPENDIX I: LETTERS PERTAINING TO RUDALL'S CHARGE OF UNPROFESSIONAL CONDUCT ON THE PART OF T. M. GIRDLESTONE, ARISING OUT OF THE CASE
RUDALL V. GILCHRIST.¹

1. Rudall to the Committee of the Medical Society.

121 Collins Street East,
July 22, 1879.

To the Committee of the Medical Society
of Victoria:
Gentlemen,

I beg to call your attention to the unprofessional conduct of Mr. Girdlestone in the nature and effect of the evidence in the County Court on the 8th inst. in the case of Rudall v. Gilchrist. The case of the late Mr. A. Gilchrist was reported to the Society by Mr. Ralph,² and it is only necessary for me to give a short resume of it.

Mr. A. Gilchrist had symptoms which were suggestive of, & were referred by his then medical attendant to, rupture of an hydatid cyst in the belly. Afterwards a tumour appeared & was repeatedly punctured. After one of these tapplings a red rash came out on the skin. Lastly, as if to clinch the proof an echinococcus hooklet was discovered.

I was aware that several medical practitioners, with whom no opportunity of a consultation was afforded to me, believed the disease to be cancer, and at my last visit I was led to think it possible that cancer might be present.

Here then was a patient dying from the pressure effects of an abdominal tumour, with proof of hydatids & possibility of cancer. If thorough exploration exposed hydatids, by enlarging the wound and removing them there might be a chance of the patient living, but if it proved the disease to be cancer, the worst consequence of the operation would be some shortening of an already necessarily very short existence.

Could anyone be justified in asserting (without seeing the patient) as Mr. Girdlestone has done, under the supposed security of the postmortem examination, that there was no

possibility of good from the operation, that it was unnecessary and improper and that I had no right to my fees? It is needless for me to occupy your time by detailing the evidence in the trial, as a sufficient report is given in the daily papers of the 9th and 10th inst.

I have the honour to be, Gentlemen,

Your obedient servant,

JAMES T. RUDALL, F.R.C.S. exam.

2. Requisition to Call Special Meeting.¹

Melbourne,

August 23rd, 1879.

Sir,

We have the honour to request that you will be good enough to call a Special Meeting of the Medical Society of Victoria for the purpose of considering the following proposition, as soon as convenient. And further, if it be deemed desirable that the Special Meeting should be held on the same night as the Ordinary Meeting of the Society we request that the Special Meeting may be allowed to take precedence of the other business in order that it may have time for a hearing. For in our experience it is generally 10 o'clock before the ordinary business of the Society is disposed of, & before this hour many members leave the Hall, after which matters of importance may be dealt with, but can not receive full attention.

Proposition:

"Having considered the report of the Committee on the charge of unprofessional conduct brought by Mr. Rudall against Mr. Girdlestone, and having read the record of the proceedings of the last Meeting of the Society as published in the Australian Medical Journal of the 15th instant, this Society is of opinion that it is but fair to state in plain terms that it entirely acquits Mr. Girdlestone of the charge made against him."

We have the honour to be, Sir,

Yr. Obedt. Servants,

WILLIAM MOLLOY.
RICHEN MALCOLMSON.
J. H. WEBB.
THOS. ROWAN.
W. L. SMYTHE.
T. M. GIRDLESTONE.
W. GILLIES.
J. WILLIAMS.
G. A. FETHERSTON.
JAS. P. RYAN.

3. Rudall to the Honorary Secretary.

August 16th, 1879.

Dear Sir,

Being unable to attend the meeting of the Medical Society this evening I now acknowledge receipt of your circular letter informing me that Mr. Girdlestone seeks to appeal against the decision of the Committee upon the charge lately brought against him by me.

Without intending any disrespect to the Committee, I beg to say, that although their decision was not entirely satisfactory to me, yet as I agreed, as I also understood Mr. Girdlestone to do, to accept the decision of the Committee as final, I would not afterwards have incurred the risk of any semblance of breach of faith by endeavouring to have the matter re-considered by the Society. It will be for the Committee to decide if I have been in error, in having supposed that Mr. Girdlestone would be bound by their decision equally with myself.

I am, Dear Sir,

Yours faithfully,

JAMES T. RUDALL, F.R.C.S.

APPENDIX II: LETTER FROM RUDALL TO THE HONORARY SECRETARY OF THE MEDICAL SOCIETY, RE
GASTROTOMY.

168 Collins Street East,

7 May, 1867.

Dear Sir,

On my return home after a short absence from town, I quite unexpectedly find on my table a notice that I am down to read a paper on Gastrotomy before the Medical

¹ It should be noted that these letters represent only a selection of the available documents in the case.

² *Australian Med. J.*, New Series (1879), 1: 264.

³ This document is in Girdlestone's handwriting.

Society. Now the few notes of the case in which I lately operated and the brief observations thereupon, which I sent to you in anticipation that the meeting of the Society would be held as usual on the first Wednesday of the month, are neither entitled nor intended to take rank as an essay on the operation of gastrotomy. I wished, however, to bring before the Society the more important particulars of the case and also to exhibit the parts involved in the disease and in the operation. I must apologize to the Society for being unable to attend at the meeting tomorrow evening. The preparation is in the charge of Mr. Rees at the Hospital.

I am, Dear Sir,

Faithfully yours,

J. Blair Esqre.

JAMES T. RUDALL.

APPENDIX III: BIBLIOGRAPHY OF JAMES THOMAS RUDALL, F.R.C.S. (ENGLAND).

1. Separate Publications.

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(1859a), "Case of Cysticercus in the Brain, with Remarks", *ibidem*, 4: 161.

(1859b), "Congenital Cataracts, with Earthy Deposits", *ibidem*, 4: 105.

(1860a), "Internal Hemorrhoids Treated by Application of Concentrated Nitric Acid", *ibidem*, 5: 22.

(1860b), "On Strabismus and Paralytic Affections of the Motor Nerves of the Eyeball", *ibidem*, 5: 167.

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(1866b and c), "Firm Medullary Cancer of Orbit—Removal of the Whole Contents of the Orbit and Application of Chloride of Zinc Paste—Cure", *ibidem*, 11: 226; letter correcting typographical error, 286.

(1866d), "On the Static and Dynamic Refraction of the Eye", *ibidem*, 11: 321.

(1866e), "Cut Throat—Severe Secondary Hemorrhage—Unsuccessful Searches for the Bleeding Vessel—Arrest of Hemorrhage—Recovery", *ibidem*, 11: 362.

(1867a), "Obstruction of the Oesophagus—Gastrotomy", *ibidem*, 12: 161.

(1867b), "Politzer's Method of Rendering the Eustachian Tube Pervious", *ibidem*, 12: 199.

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(1882g), "Optic Neuritis in Continued Fever", *ibidem*, 2: 29.

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(1883d), "Remarks on Railway and Marine Signals, and on the Necessity of Accurate Testing of the Sight of Signal and Look-out Men by Land and Sea", *Tr. & Proc. Roy. Soc. Victoria*, 19: 124.

(1884), "On Germs of Blennorrhagia", by Dr. Ecklund (Sweden), translated by J. T. Rudall, *ibidem*, 20: 87 (title only).

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(1885b), "Presidential Address" (Victorian Branch of the British Medical Association), *Australian Med. J.* (New Series), 7: 354.

(1885c), "Gastrotomy" (letter), *ibidem* (New Series), 7: 427.

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(1888b), "Some Remarks on the Treatment of Hemorrhage after Wounds of the Hand", *ibidem* (New Series), 10: 259.

(1888c), [Professor] "Donders Memorial Fund" (letter), *Australasian Med. Gaz.*, 7: 147.

(1890), "Note on Examination with the Ophthalmoscope by Ordinary Daylight", *Australian Med. J. (New Series)*, 12: 415.

(1893), "An Occasional Cause of Difficulty in the Diagnosis of Cystic Tumours of the Abdomen", *ibidem* (New Series), 15: 433.

(1895), "On the Surgical Treatment of Hydatid Tumours" (part of a clinical lecture), *ibidem* (New Series), 17: 8.

(1899), "A Note on Operation in Pan-Ophthalmitis with Reference to Two Cases", *Intercolonial Med. J. Australasia*, 4: 352.

(1900), "Pseudo-glioma", exhibit at meeting of Melbourne Ophthalmological Society, August 22.

(1901), "Presidential Address" (Melbourne Ophthalmological Society), *Intercolonial Med. J. Australasia*, 6: 113.

3. Letters.

Six letters by Rudall are listed in the Catalogue of Medico-Historical Items (Letters and Documents) at the Museum of the Medical Society of Victoria. All are addressed to the Society.

1867 (May 7): Re report of case of gastrotomy (Appendix II).

1873 (May 7): Re attendances at court, protesting against "the utterly inadequate fee allowed by Law to members of our profession . . .", envisaging the day when surgeons will refuse to attend accident cases "through fear of being legally robbed of their time".

1876 (January 19): Re his recent election to the Committee of the Medical Society, declining the honour owing to pressure of other engagements.

1879 (July 22): Re the action Rudall v. Gilchrist, bringing a charge of unprofessional conduct against Mr. Girdlestone as a result thereof (Appendix I). With this is a covering letter to the Honorary Secretary.

1879 (August 16): Re Girdlestone's notice of appeal against the decision of the Medical Society Committee on the above charge (Appendix I).

4. Contributions to Discussion.

This list is incomplete, being compiled at a stage of preparation of this paper when it was desirable to note any significant contribution which Rudall made to a discussion on an important or topical subject or any discussion on a subject in which Rudall was particularly interested. The discussions took place at meetings of the Medical Society or the Victorian Branch of the British Medical Association, and are to be found in the reports of their proceedings.

Treatment of Diphtheria, 1866, 1882; Jordan v. Syme, Donaldson v. Barker, 1869; Turner v. Van Hemert, 1871; Cancer, 1868; Epithelial Cancer, 1874; Snakebite, 1876; Hydatids, 1877, 1885; Test for Ecchymosis (at autopsy), Semi-luxation of Cervical Vertebra, Injurious Effects of Overwork, Exostosis of Inferior Maxilla, Acute Prostatitis, Proptosis with Ocular Paresis, Late Epidemic (of Influenza), Self-Poisoning in Infants, 1885; Catarrh of Bladder, 1878; Decapitation, Suicide or Accident?, Post-Nasal Growths, Alcoholic Stimulants in Health and Disease, Fracture of Scapula, 1886; Anesthesia, 1888; Leprosy, Saline Infusion, Intestinal Obstruction and Meckel's Diverticulum, 1889.

Reports of Cases.

REPORT OF A CASE OF ALLERGY TO THIOMERIN SODIUM.

By R. W. NICHOLLS,
Yackandandah, Victoria.

MR. A. was examined early in December, 1953, complaining of shortness of breath. He was aged seventy-eight years and had atheromatous arteries, an enlarged heart and irregular pulse, and an enlarged prostate gland, and there was gross oedema of the subcutaneous tissues of the lower extremities. Intravenous injections of "Salyrgan" (mersalyl with theophylline) were given, with subsequent satisfactory diuresis. However, he complained that these injections were "too severe".

The patient was admitted to hospital in January, 1954. Thiomerin sodium ("Mercaptomerin Sodium", Wyeth, Incorporated), 0.14 gramme in 1.0 cubic centimetre of distilled water, was injected subcutaneously. At first the injections were given daily for three doses, and later on alternate days. Shortly after the sixth dose a morbilliform rash was detected on the trunk and proximal parts of the extremities, and injections of thiomerin were discontinued. The solution of thiomerin had been kept in a refrigerator and was not turbid.

On February 8, about midday, I injected subcutaneously 0.14 gramme of thiomerin in one cubic centimetre of distilled water. About 4 p.m. I had to visit the patient urgently. He was in severe distress from dyspnoea and wheezy breathing. He had high-pitched rhonchi over both lungs. There was a flaring widespread erythematous rash with multiple large areas of urticaria. Some relief was afforded by an injection of adrenaline, but it was about four days before the rash and asthma subsided.

In May he had repeated injections of "Salyrgan" without any apparent ill effects and certainly no allergic response. The patient has one son who is very allergic to penicillin given parenterally, and another son whose skin exhibited a very severe response to a sulphonamide ointment applied to a chronically inflamed leg ulcer.

ACUTE INFLAMMATION OF THE RETROILEAL APPENDIX MASQUERADING AS ACUTE ILEAL OBSTRUCTION.

By THOMAS F. ROSE.

From the Department of Surgery, The Royal North Shore Hospital of Sydney.

The diagnosis between acute appendicitis and acute ileal obstruction may occasionally be difficult. In this regard, it is of historical interest to note that when Krönlein (1886) performed the first planned appendicectomy by urgent laparotomy for an acutely inflamed appendix, he was in doubt pre-operatively as to whether the patient was suffering from appendicitis or from acute ileal obstruction.

Quite apart from any diagnostic difficulty in separating these two conditions, it is well known that an appendiceal abscess itself may be a cause of acute ileal obstruction. However, it is not so well realized that not only may acute retroileal appendicitis alone, without abscess formation, cause ileal obstruction from the commencement of the attack, but also the symptoms attributable to this obstruction may so predominate as to mask completely those caused by the inflamed appendix. Thus the patient is presented *ab initio* as suffering from small bowel obstruction of uncertain aetiology, with no symptoms or signs to incriminate the guilty appendix.

Acute appendicitis presenting itself in such a way is uncommon, and only two instances were found in a personal series of 1150 cases of acute appendicitis. These are the subject of this communication.

Case I.

The patient, a man, aged sixty years, complained of generalized colicky abdominal pains and vomiting for two days. During this time he was constipated after an initial bout of diarrhoea. He was referred to hospital as suffering from acute intestinal obstruction.

Examination there showed him to be very dehydrated. His temperature was 100° F., his respirations numbered 25 per minute and his pulse rate was 120 per minute. His abdomen was a little distended and was vaguely tender on palpation. Plain radiographs of the abdomen showed distended loops of small bowel, some with fluid levels, extending down to the right iliac fossa.

At operation, performed through a right paramedian incision, a gangrenous, retroileal appendix was found;

fecolith obstruction was the cause. The appendix had ruptured and caused localized peritonitis. Many fibrinous adhesions had caused a now complete obstruction of the terminal portion of the ileum. The appendix was removed, the adhesions were divided and the ileum was mobilized.

Recovery was uneventful.

Case II.

Not so successful was the outcome in the second case, because the patient neglected to call for medical aid for some days.

The patient, a woman, aged fifty years, had had attacks of generalized abdominal colic with vomiting for five days. During this time her abdomen became slowly distended. She passed a little flatus and faeces during the first three days of her illness, but none thereafter. Not until the fifth day did she call in her doctor, who diagnosed acute intestinal obstruction and referred her for surgical intervention.

On examination, the patient was very ill and obviously dehydrated. Her temperature was 100° F., her pulse rate was 130 per minute and her respirations numbered 30 per minute. She was, in fact, so ill as to appear almost moribund.

Her abdomen was distended and loops of small bowel showing a ladder pattern could be seen. There was generalized abdominal tenderness, so that a strangulated loop of bowel was suspected. Pelvic and rectal examinations revealed some tenderness on the right side.

The diagnosis was made of an advanced small bowel strangulation-obstruction of doubtful origin.

After the usual pre-operative resuscitation with the intravenous administration of fluid and electrolytes had been performed and gastric suction instituted, the patient's condition improved so that abdominal exploration was able to be carried out through a right paramedian incision. A ruptured, gangrenous appendix lying in a retroileal position was found. The terminal portion of the ileum was completely obstructed by recent fibrinous adhesions and adherent omentum. The appendix was removed and the obstructing adhesions were divided.

All was well for two days, when the patient suddenly died from acute peripheral circulatory failure. An autopsy was unable to be obtained.

Discussion.

These cases of appendicitis were unusual, in that right from the commencement of the illness the symptoms and signs were those of an acute ileal obstruction; this, of course, was the actual condition, but the only sign implicating the appendix was a raised temperature in each instance.

Both patients had generalized colicky abdominal pain, which never radiated to the right iliac fossa. Vomiting and constipation (in Case I after initial diarrhoea) were prominent from the start.

The abdomen of both patients became distended early (in Case II with a ladder pattern), and both patients had generalized abdominal tenderness which made one suspect a strangulation-obstruction.

Routine radiographic examination of the abdomen in Case I revealed numerous generalized fluid levels in the small bowel, whose loops were distended down to the terminal portion of the ileum. It is of interest to note, *en passant*, that if radiographs of the abdomen are taken in early cases of obvious acute appendicitis, in those cases in which the appendix is found later to be retroileal fluid levels may be found in the region of the terminal portion of the ileum, though clinically no evidence of obstruction is apparent.

At operation both appendices were in the retroileal position, both were ruptured and gangrenous, but neither had formed abscesses—merely local peritonitis causing adhesions which obstructed the terminal portion of the ileum, at first incompletely, but later completely.

In spite of this, neither patient had any symptoms or signs pointing specifically at any time to the right iliac fossa, as one would expect in such cases of appendicitis.

Summary.

Two cases are described of retroileal gangrenous appendicitis causing acute obstruction of the terminal portion of the ileum from the initiation of the disease process.

Acknowledgement.

I wish to thank Dr. V. W. Pennington, of Clovelly, to whom I am indebted for the information concerning both these patients prior to my examining them.

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- KRÖNLEIN, R. (1886), *Arch. Klin. Chir.*, 33:507; quoted by Shepherd, J., *loc. citato*.
SHEPHERD, J. (1954), "Acute Appendicitis. A Historical Survey", *Lancet*, 267:299.

Reviews.

The Year Book of Medicine (1954-1955 Year Book Series). Edited by Paul B. Beeson, M.D., Carl Muschenheim, M.D., William B. Castle, M.D., Tinsley R. Harrison, M.D., Franz J. Ingelfinger, M.D., and Philip K. Bondy, M.D.: 1954. Chicago: The Year Book Publishers, Incorporated. 8" x 5½", pp. 712, with 115 illustrations.

Of the six editors of this Year Book, two are newcomers. The section on the digestive system has been taken over by Franz J. Ingelfinger and the section on metabolism by Philip K. Bondy. In the section on infections, apart from the individual infectious conditions, subjects dealt with include antibiotic therapy, the aetiology of common respiratory disease, corticotropin and cortisone, and anaemia in acute infection. The section on the chest has subsections on pathology, diagnostic methods, neoplasms, congenital disorders, bronchiectasis and chronic bronchitis, emphysema, bronchial asthma, pulmonary mycoses and tuberculosis. The section on the blood and blood-forming organs has an opening discussion on general considerations and special techniques; each of the broad divisions of disorders of the blood and blood-forming organs is then dealt with separately. Subjects particularly considered in the section on the heart and blood vessels and the kidney are congenital heart disease, rheumatic heart disease, coronary disease, hypertension, congestive failure and shock, electrocardiography, arrhythmias, miscellaneous disorders of the heart, pulmonary circulation, cerebral circulation, peripheral vascular disorders and the kidney. Subdivision of the section on the digestive system is on a simple anatomical basis. In the concluding section on metabolism are found articles on the thyroid gland, the adrenal glands, the pituitary gland and brain stem, abnormalities of carbohydrate metabolism, calcium, phosphorus and the parathyroid glands, and body composition and nutrition. Journals abstracted in this volume include those received up to May, 1954. A tremendous number of individual articles have been abstracted; so the volume brings to the reader a great deal of current literature in general medicine.

Practical Clinical Biochemistry. By Harold Varley, M.Sc., F.R.I.C.: 1954. London: William Heinemann (Medical Books), Limited. 9" x 6", pp. 558, with 70 text figures. Price: 42s.

"The present book", writes Harold Varley in the preface, "is a survey of the whole field of this subject from the standpoint of workers in hospital laboratories." The book is in effect a collection of methods for biochemical examinations of clinical interest. Of the methods a very wide range is given, and sometimes an embarrassing choice is presented.

References are given to the sources from which the methods are derived, but in general they are described in sufficient detail to enable them to be carried out without recourse to further information. There are one or two exceptions to this statement. For example, a flame photometer is described, but there is no description of its use for determinations of sodium and potassium. Again, an apparatus is described for the separation of serum proteins by paper strip electrophoresis, but the scanning or elution of the stained strips, without which they cannot be read, is not described. One surprising omission is that of any descrip-

tion of the use of the glass electrode for the electrometric determination of pH.

The subject matter of the book is divided into 13 chapters, including one on the detection and estimation of some common drugs and poisons. Each chapter includes a short but useful section on the interpretation of the methods or function tests described. There is an appendix, devoted mainly to the composition of buffer mixtures, as well as a list of references to a few of the better known text-books on clinical biochemistry.

This book is compact as well as comprehensive. It should take its place among the few well-thumbed volumes which form the working library of a hospital laboratory.

Recent Advances in Paediatrics. Edited by Douglas Gairdner, D.M., F.R.C.P.; 1954. London: J. and A. Churchill, Limited. 8" x 5½", pp. 480, with 117 illustrations. Price: 42s.

THIS book will be welcomed by every practitioner of medicine who has been trying to keep abreast of the many recent discoveries in the paediatric field. Only the very fortunate, with good library facilities and the time to make use of them, can read a significant number of original articles. The rest, battling on with one or two journals and inadequate time, needs books of this sort.

The editor's task of selecting suitable subjects out of the large number offering must have been difficult. In all there are twenty chapters, covering such topics as hiatus hernia, sudden death in infancy, haemolytic disease of the newborn, collic disease, tuberculosis, congenital heart disease, intersexuality and the adrenogenital syndrome, to mention only a few. The information is concise and accompanied by good photographs and charts. References are supplied at the end of each chapter.

More than a quarter of the book is devoted to different aspects of neonatal paediatrics. An excellent account of "The Establishment of Respiration" by Gairdner is followed by others dealing with "Prematurity" (Mary Crose), "Haemolytic Disease of the Newborn" (Mollison and Cutbush) and "Infant Feeding" (Mackintosh). The authors' names are sufficient guarantee of the quality of the writing.

The last chapter, entitled "Nurture and Mental Development", is one of the best in the book, dealing *inter alia* with the psychological causes of retardation and the investigation of such cases.

The section entitled "Immunization Against Infectious Disease" and another, mainly statistical, on "Perinatal Mortality" are of interest mainly to public health officers. While emphasizing the preventive side of paediatrics they could, however, have been omitted without much loss. It would be invidious to compare one chapter with another, written as they are by different authors. The section that will seem most novel to most people is entitled "Some Metabolic Disorders", in which R. H. Wilkinson discusses aminoaciduria, infantile renal acidosis and idiopathic hypercalcaemia in infants. Each of these three important conditions has been salvaged from the "failure to thrive" scrapheap. In the light of such studies "marasmus" is evidently no longer tenable as a diagnosis.

Heart Disease and Industry: With Particular Reference to Workmen's Compensation Cases. By Meyer Texon, M.D., with forewords by Samuel A. Levine, M.D., and Hubert Winston Smith, LL.B., M.D.; 1954. New York: Grune and Stratton. 10" x 7", pp. 336. Price: \$7.50.

HEART DISEASE AND INDUSTRY is a subject that has become of great importance in recent years, for many people claim compensation for heart disease, which they consider has been caused or aggravated by their work. Most practitioners find this is a difficult subject and hesitate to express an opinion. Texon's book will help both the experienced and the inexperienced, because it covers the whole field thoroughly and explicitly, and quotes many authorities.

The book is divided into three sections. The first states the problem, aims of the study and statistics of symptoms, signs and types of cases. The second section is devoted to "one hundred cases". Here are given in detail the history, findings on physical examination, results of special tests and the author's differential diagnosis and summing up. Since each case presents a different problem, much valuable information is obtained and also the reader learns how to frame a report to cover all relevant aspects. The third section is devoted to coronary occlusion and its relation to trauma, effort and work generally. Opinions quoted are many and various, and they show that no finality can be

reached at present. The author and most others to whom he refers are of the opinion that coronary occlusion is not due to effort, but is the end result of increasing coronary sclerosis. A few consider that it "might" be caused by effort, but fail to suggest a mechanism. One author who stated in 1939 that excessive exercise was a factor, states in 1941 that it is merely coincidental.

Although the author does not attempt to present a solution to the problem, nevertheless this book is a valuable reference work and can be recommended to all medical practitioners who are working in this field.

Notes on Books, Current Journals and New Appliances.

Family Doctor. Published monthly by the proprietors, the British Medical Association, Tavistock Square, London, E.C.1. Sole agents for Australia and New Zealand: Gordon and Gotch (Australasia), Limited. Subscription for twelve months: 20s. (sterling), including postage.

A NUMBER of regular features of *Family Doctor*, like the *Readers' Service Bureau* (answers to questions), the *cooking* articles, the beauty hints and the popular science notes, must be anticipated quite eagerly by many readers. In addition, each month brings a selection of readable and informative general articles. In the November issue there is something to be said about colds and catarrh, space travel, the gift of sight, smog, strokes, confidence, sex aspects of heredity, difficult daughters, and much else. As lay medical publications go, *Family Doctor* is to be highly recommended.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"Deprived Children: The Mersham Experiment, A Social and Clinical Study", by Hilda Lewis, M.D., M.R.C.P., with a foreword by Arthur Ellis and Dr. C. P. Blacker; 1954. London: Oxford University Press. Melbourne: Oxford University Press. Published for the Nuffield Foundation by Geoffrey Cumberlege. 8½" x 6", pp. 180. Price: 17s. 9d.

The record of a new approach to the problem of children who have no home or who are thought to be better away from their own homes.

"A Thousand Families in Newcastle upon Tyne: An Approach to the Study of Health and Illness in Children", by James Spence, W. S. Walton, F. J. W. Miller and S. D. M. Court; 1954. London: Oxford University Press. Melbourne: Oxford University Press. Published for the Nuffield Foundation and the Nuffield Provincial Hospital Trust by Geoffrey Cumberlege. 8½" x 6", pp. 232, with 15 illustrations. Price: 19s. 9d.

A record of an inquiry designed "to identify the diseases of childhood in a representative sample of families, to trace their origins, and to measure their effects".

"Administrative Medicine": Transactions of the Second Conference, December 8, 9 and 10, 1953, Princeton, N.J.; edited by George S. Stevenson, M.D.; 1954. New York: Josiah Macy Junior Foundation. 9½" x 6½", pp. 164, with 11 text figures. Price: \$3.00.

The conference discussed three subjects: "The Major Components of Administrative Medicine", "Home-Care Programs", and "The Health Services of the Department of Health for Scotland".

"Liver Injury": Transactions of the Twelfth Conference, September 21, 22 and 23, 1953, Princeton, N.J.; edited by F. W. Hoffbauer, M.D.; 1954. New York: Josiah Macy Junior Foundation. 9½" x 6½", pp. 232, with 52 illustrations. Price: \$4.25.

There were discussions on four different subjects.

"The Year Book of General Surgery (1954-1955 Year Book Series)", edited by Evaris A. Graham, A.B., M.D., with a section on Anesthesia, edited by Stuart C. Cullen, M.D.; 1954. Chicago: The Year Book Publishers, Incorporated. 8" x 5½", pp. 500, with 131 illustrations. Price: \$6.00.

One of the "Practical Medicine Series" of Year Books.

The Medical Journal of Australia

SATURDAY, DECEMBER 25, 1954.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given: surname of author, initials of author, year, full title of article, name of journal, volume, number of first page of the article. The abbreviations used for the titles of journals are those adopted by the Quarterly Cumulative Index Medicus. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

"OUR JOYFULST FEAST."

So, now is come our joyfult feast,
Let every man be jolly;
Each room with ivy leaves is drest,
And every post with holly,
Though some churls at our mirth repine,
Round your foreheads garlands twine;
Drown sorrow in a cup of wine,
And let us all be merry.

Thus wrote George Wither in his old Christmas song. He wrote for the Old World where Jack Frost is a constant visitor at Christmas time and the hot sun of Australian bush and beach is unknown. In the second verse of his song he writes:

Now all our neighbours' chimneys smoke,
And Christmas logs are burning;
Their ovens they with baked meats choke,
And all their spits are turning.

The picture presented by words of this kind will no doubt induce nostalgic sentiments among some Australians, of new or old vintage, who have known and loved an Old World Christmas. And we may be sure that some of those who live in the Old World and do not like the cold and bleak, would be glad to spend at least one Christmas in the sun. But be that all as it may, it is the spirit of Christmas which counts—the spirit of "our joyfult feast".

Christmas is in the popular mind a feast for children. Most of us recall our early years when our fathers and mothers made Christmas a happy time for us, with a lively anticipation for weeks beforehand, with stories of Santa Claus and his feats in the chimney and what he might bring, and when the great day arrived with feasting and merrymaking. Our homes were decorated, and even when we were quite small we took a part in this. The jollity

was much the same whether we lived in the cold and frosty north in the Old Country or in the sun-soaked generosity of our own. We are creatures of habit and, at least in the matter of food, follow our forebears in a way not suited to our surroundings. We eat a hot dinner and must have a plum pudding when common sense should tell us that cold dishes and fruits would be more suitable. But the human stomach can stand up to many demands that are made of it, and in any case, if we think that large hot dinners with plum pudding are part of the Christmas jollification, why should we not flout our common sense?

Some of the trappings and habits of Christmas are of ancient lineage, the origin being not always clear. The use of holly at Christmas time is widespread. One authority tells us that the name holly is said to be derived from the use of the branches and berries to decorate churches at Christmas time and that the tree was called holy tree. According to the "Encyclopædia Britannica" the custom of employing holly and other plants for decorative purposes at Christmas is one of considerable antiquity, and has been regarded as a survival of the usages of the Roman saturnalia, or of an old Teutonic practice of hanging the interior of dwellings with evergreens as a refuge for sylvan spirits from the inclemency of winter. A Border proverb, we read, defines an habitual story-teller as one that "lees never but when the hollen is green". Several popular superstitions with respect to holly are quoted. In the county of Rutland it is deemed unlucky to introduce it into a house before Christmas eve. In some English rural districts the prickly and non-prickly kinds are distinguished as "he" and "she" holly; and in Derbyshire the tradition obtains that according as the holly brought at Christmas into a house is smooth or rough, the wife or the husband will be master. Of wine, mentioned by Wither, not a great deal need be said. We all know that wine, taken at the right time, in suitable quantity and in congenial company, has a heart-warming and brightening effect. It will as a rule add zest to Christmas celebrations; we may therefore not regard it from the point of view of our "stomach's sake" or our "often infirmities", but use its persuasive gentleness to help us make merry.

Santa Claus is known widely to be a corruption of the name Saint Nicholas, and has been made to live in the minds of many generations of children. Strangely enough a family is known whose mother insisted that her children should not refer to Santa Claus, but should always call him Saint Nicholas. This they did, to the complete mystification of friends and acquaintances. Saint Nicholas (again our information comes from the "Encyclopædia Britannica") was bishop of Myra, in Lycia, in the time of the Roman Emperor Diocletian. "His cult is as celebrated as his history is obscure." Nearly 400 churches in England are dedicated to Saint Nicholas. He is described as the protector of children, scholars, merchants and sailors, and is invoked by travellers against robbers. What interests us particularly at this time is a legend of his surreptitious bestowal of dowries upon three daughters of an impoverished citizen, who, unable to procure suitable marriages for them, was on the point of "giving them up to a life of shame". This is said to have originated the old custom of giving presents in secret on the Eve of Saint Nicholas, subsequently transferred to Christmas Day.

There is at least one other reason put forward for the giving of presents at Christmas time. In one branch of the Christian Church it has been taught that gifts made at Christmas time typify the gift by God the Father to the world of the Redeemer, God the Son.

This issue of the journal appears on December 25; we have no reason therefore to plead an excuse for any excess of enthusiasm on "our joyfulest feast". The coincidence of dates occurred last in 1948, and in that year special reference was made to the old Christmas carol "Adeste Fideles". If on this occasion stress is laid on the jollification and the merrymaking, there is no implication that serious thought should be put on one side. Merriment and serious thoughts on Christmas are not mutually exclusive. On the contrary a good case could be made for the latter as the *fons et origo* of the former. According to Holy Writ, peace and goodwill were proclaimed nearly two thousand years ago at Bethlehem. It is unfortunate that these two words have in recent years been too glibly used and not always for commendable ends. The world needs a return to the simplicity and single intent that appear in the words and works of the Babe of Bethlehem, become man. When we make an effort in this direction, as indeed we must, we need not have long faces and glum; we can still be merry and enjoy the good things that go with a joyful Christmas. So may we be.

Current Comment.

LOUIS XIV AND HIS HEALTH.

IN the year 1638 was born Louis of France, son of Louis XIII and Anne of Austria. He ascended the throne at the age of five years, on the death of his father, and died in 1715, after the longest recorded reign in European history. The period was one of brilliance, and the king's influence was felt in more than one cultural sphere. The name "*roi soleil*" by which he is often referred to was not entirely bestowed because of empty flattery. It will be remembered that in the issue of this journal of December 4, 1954, we drew attention to an article by L. Chauvois on events in France following Harvey's discovery of the circulation of the blood, and saw how the liberal attitude of the king towards scientific matters underlay what took place. A much more personal account of Louis XIV comes from R. Vaultier,¹ who has put together from various sources a great many recorded facts about his way of life, his health and his medical attendants. The whole of the picture painted is of interest, but we can refer in this place only to certain aspects of it.

As a child Louis suffered from the usual complaints, such as measles and smallpox. Later he is recorded as having contracted typhus; Vaultier remarks that this is not surprising, since the king had spent much of his early life in camp, living as a soldier. The same applies to gonorrhoea (nicely referred to as "*ce coup de pied de Vénus*"); but this was a source of great embarrassment to the king's chief physician at that time, since his carefully kept day-to-day accounts of his royal patient's health were read by the queen mother. He overcame the difficulty by writing that the illness was one which he had never seen before, and that the king must have a congenital weakness. He warned the king that on that account he should participate less in equestrian exercises. The ignorance in which he left the patient about the cause of his disorder had unfortunate consequences; however, Louis was given all the remedies usual at that time, and whether

post hoc or *propter hoc*, the discharge ultimately ceased. Louis also suffered from a fistula, said to be the result of a perianal abscess which was not incised in the early stages. All his life Louis was subject to "the vapours"; some authorities have ascribed them to a tapeworm, others to an *Ascaris lumbricoides* infestation. On the latter, the comment has been made by E. Dégueret² that we must not attribute to the king's ascariades a role which is not their due, and that the ten worms passed by the king in seventy-seven years do not deserve such an honour. Vaultier is certain that "the vapours" resulted from disturbed digestion, due to the king's bad teeth (at the age of forty-seven years he had practically no upper teeth left, and all his lower teeth were carious), and to the immense and highly seasoned meals that he insisted on eating. His eating habits were also largely responsible for the gout from which he suffered from the age of forty years (his father and grandfather were also gouty subjects); his death from senile gangrene was its logical outcome. The gout was aggravated by chronic nephritis and by cardiac and arterial disease. Louis was also an arthritic.

So complete are the accounts of the life of *le roi soleil* that it is possible to put together a minute-by-minute description of his usual day. From the moment of his rising at 8.30 a.m., every movement was enveloped in a ritual that seems to us comical. "Servants and courtiers, military men or doctors appear on the scene as in one of Lully's ballets or one of Molière's musical comedies." In fact, the whole of Louis's life is as it were made up of a series of short plays. On the king's rising, his chief physician and his chief surgeon entered the bedchamber with his valets. The servants rubbed the king down, and often had to change his shirt because he was "subject to sweats". It may be remarked that although his standards of hygiene seem primitive, they were in fact somewhat advanced, since he actually took baths or foot baths, also surrounded by ceremonial. When he was dressed and his wig was being put on, the doors were opened to those who had the right of entry. These included the king's ordinary physician, the chief physician to the Dauphin, the chief physician to the Dauphin's children, the king's surgeon in ordinary and the chief apothecary. The king's breakfast was short, like his toilet, and as frugal as a peasant's. After breakfast he heard Mass, and then attended to affairs of State. At noon a solemn ritual took place; he went to his commode (a sumptuous piece of furniture), where he often remained as long as three-quarters of an hour conversing with his close friends. Dinner was at one o'clock, a huge meal. It is recorded as fact that in 1708, at the age of seventy years, the king devoured *entrées*, soup, and the best part of three roast fowls. By contrast he drank but little wine, and that usually diluted with water. After dinner the king rinsed his fingers (perfunctorily, it must be confessed) and went to his office, to spend a little time with his illegitimate children, his doctor, his courtiers and his favourite dogs. He then went for a walk, for he felt the need of exercise. He was a great lover of hunting. On his walks the king was followed on horse-back by several officers of his household, including his surgeon and his bone-setter, in case of accident. At 10 p.m. the king took his supper, another large and formal meal. Afterwards games were played; but towards the end of his life the king cared for little but billiards, and spent the time in his study. Then began the grand ritual of going to bed, carried out with the same pomp as, and in inverse order to, the king's rising. An important feature was the bringing in of the night-time "snack", in case the king should be hungry after his large dinner; this usually consisted of three loaves of bread, two bottles of wine and one bottle of water. After the first scene had come to an end, a servant requested all those who had not the right to be present at the *petit coucher* to leave; the only ones left were a few who had that privilege, with the chief physician and the surgeons. Once more the king went to his commode, in the presence of those privileged to be there. When he finally got into bed, he had with him only his doctor and a valet, and when the curtains were drawn, for the first time in the day he could forget etiquette. At

¹ *Presse méd.*, September 29, 1954.

² *Thèse de Paris*, 1924.

times certain other ceremonies cut across the routine of the day—for example, when the king took medicine, or when on fixed dates, exercising his privilege of healer, he "touched" for scrofula.

The medical attendants of Louis XIV have been criticized and laughed at; for all that, they kept him alive for seventy-seven years. Their regular detoxicating treatments and their periodical cuppings must have played a large part in protecting him from the apoplexy that suddenly carried off several of his contemporaries, and they did their best to counteract the results of the inadequate hygiene of the times. There is ample evidence that among Louis's medical and surgical attendants were a number of highly competent doctors, according to contemporary standards, who were completely devoted in their care of the king, no easy task.

CANCER OF THE RECTUM.

THE expectation of life of the patient operated on for malignant disease of the rectum will depend largely on the state of the lesion at the time when the diagnosis is made and the operation is performed. This generalization may be accepted for practical purposes as correct, but occasionally the most surprising result is obtained when the lesion would appear at first sight to be inoperable. Moreover, one of the most decisive factors in success is the technical skill of the operating surgeon. An important contribution to this subject comes from the pen of S. H. Wass, who writes on his experience gained with 140 consecutive patients suffering from cancer of the rectum.¹ Opening the subject of diagnosis with the observation that it is usually easy because the disease is all too far advanced by the time the patient reaches the hospital, he refers to the classification of rectal carcinomata into three groups as set out by Dukes. Dukes described three grades: "A" cases, in which the growth is confined to the wall of the rectum; "B" cases, in which extrarectal spread has occurred; and "C" cases, in which glandular metastases have taken place. In Wass's series, 133 patients were submitted to operation, and among them only nine "A" growths were found; the remainder comprised 80 "B" and 44 "C" growths. This picture, which Wass describes as gloomy, does not deal with the presence of liver metastases at the time of diagnosis. Metastases were found in the liver at operation in 18 patients (13.5%), and at least seven other patients (including one with an "A" growth and two with "B" growths) died from blood-stream metastases after radical resections had been performed. In these seven patients, autopsies showed no evidence of local or glandular recurrence, and it is concluded therefore that malignant deposits must have been present in the liver at the time of operation. Thus, nearly one-fifth of the patients in the series had no chance of being cured of their disease at the time it was diagnosed, and in many others without liver metastases the growth was so advanced that the chance of cure was extremely remote. We shall therefore agree with Wass that while this state of affairs continues improved results cannot be expected, and that earlier diagnosis presents many difficulties. It is undoubtedly true that failure to recognise an early growth of the rectum may be the fault of the patient or of his medical attendants, and also that from fear or ignorance the patient often fails to seek advice. On the other hand, Wass points out that sometimes the symptoms are so trivial that only the most intelligent are aware of anything amiss. One medical practitioner consulted him for rectal bleeding on the very first day the symptom occurred; he had an "A" growth of the ulcerating type and was dead of liver metastases two and a half years later. Two patients complained of nothing more than *pruritus ani* and had "B" growths low down in the rectum. This is certainly a gloomy side to the picture. There is another side which is not quite so depressing. Wass points out that it is encouraging to find among long-term survivors some patients in whom operation had seemed almost a forlorn

hope. Of the patients operated on by him, 28 were alive and well for more than three years, and these included 17 who were in good health for between five and seven years after operation. Among the 17 patients were two who had advanced "C" growths with enlarged glands along the iliac vessels, three patients with extensive "B" growths involving adjacent viscera, and one young woman with a highly anaplastic tumour in the lower part of the rectum which was invading the tissues of the ischio-rectal fossa. He adds, and we must agree with him, that while lives can be saved in such unfavourable circumstances, it is imperative to persevere with radical surgery for advanced rectal growths and not to be discouraged by the many disappointments which must inevitably occur. It is also important, he adds, not to classify a growth as inoperable without just reason. Three patients in his series, who had been condemned at other hospitals, are alive and well between three and four years after operation at Guy's Hospital. Some of the 40 patients still alive for a period of less than three years after operation already had evidence of recurrent disease, but others were in good health and Wass thinks that some of them will eventually be added to the list of long-term survivors. The general conclusion here is that although the percentage of patients with "B" and "C" growths who survive for three years or more is disappointingly small, the successes amply justified the efforts expended.

Reference should be made to a recent study by Duncan A. Cameron, H. A. Chatnick and D. W. McLean, of Detroit, of 420 patients with cancer of the large bowel operated on from a private, a charity, and a veterans' hospital.² We do not propose to survey the whole of this article, since it deals with cancer of the whole colon and not particularly with that of the rectum. There are one or two important points, however, which should be emphasized. We read that 48% of 71 patients from the charity hospital had had symptoms for more than one year; 30% had had symptoms for less than three months, and a few for only a few days. The amazing fact is that almost without exception these patients had not been examined digitally or sigmoidoscopically prior to admission to hospital, regardless of the duration of symptoms. Over 40% of their lesions could have been discovered by such examination. It was not possible to follow up the patients from the veterans' hospital for a period of five years, but 218 from the charity and the private hospitals were traced. The number of patients from the private hospital who were presumably cured was 64 of a total of 147 (43.5%); the number known to be alive and well was 21 (14%). The number of patients from the charity hospital who were presumably cured was 25 out of a total of 71 (35.0%), and 12 (16%) were known to be alive and well. We know that malignant disease of the ascending and descending colon carries a graver prognosis than cancer of the rectum. Some figures illustrating this fact were given in 1953 by L. T. Palumbo *et alii*.³ These authors concluded that the higher the lesion is in the rectum, or in the recto-sigmoid or sigmoid areas, the longer is the survival period and the higher is the percentage of survivals. They stated that, in general, patients with lesions involving the lower part of the left side of the colon had a better chance for longer survival if the lesion was in the sigmoid; the percentage of longer survivals in their series was 83 for this site as compared with 57% in the recto-sigmoid and 47% in the rectum. The skill of the surgeon has been mentioned as a factor in the production of good results. With this, of course, is bound up the type of operation which he will perform. Wass states that the operation which offers the best chance of complete eradication of malignant disease of the rectum is some form of abdomino-perineal resection, but he points out that this operation carries a higher mortality and a higher risk of complications than other types of excision of the rectum. Wass refers to the synchronous combined excision of the rectum. This operation is a variation of the classical abdomino-perineal excision of Miles and the perineo-abdominal excision of Gabriel. In this operation, the patient is placed in the lithotomy-Trendelenburg

¹ *Guy's Hosp. Rep.*, Volume 103, No. 2, 1954.

² *Arch. Surg.*, August, 1954.

³ *Arch. Surg.*, 1953, Volume 66, page 198.

position and two surgeons work simultaneously, one in the abdomen and one in the perineum. He points out that by avoiding changes in the position of the patient, and by reducing the operating time to between thirty-five and sixty minutes, it diminishes post-operative shock. It has the further advantage, in his experience, of facilitating the removal of extensive growths, some of which would have been deemed inoperable without the aid of a second surgeon working from the opposite aspect of the large tumour mass. He has employed it for all tumours requiring the most radical type of excision (74 cases) and has also used it on 15 occasions as a palliative procedure. This operation is admirably described in H. B. Devine's textbook on surgery of the alimentary tract. In regard to the skill of the surgeon, one story may be told. A surgeon from one Australian State was paying a visit to a surgeon in another. The latter was expert in the performance of the abdomino-perineal resection of malignant disease of the rectum. At the conclusion of an operation the visitor turned to the surgeon and said: "I think you are a menace to surgery." On somewhat irate inquiry as to what the visitor meant, the surgeon was informed that: "You make it look so easy that any incompetent surgeon watching you might think that he was capable of doing the work." This subject has by no means been completely covered in this review of the articles by Wass and the other authors, but it has, we hope, given readers some food for thought.

CAMPHOR POISONING.

CAMPHOR is obtained by distillation from the wood of *Cinnamomum camphora*, or it is prepared synthetically. The natural product is dextrorotatory; the synthetic product is optically inactive. Camphor consists of colourless, transparent crystals with an aromatic odour and a pungent taste; the crystals are known as "bells" or "flowers of camphor", or as "blocks" or "tablets". Martindale tells us that camphor taken internally is irritant and carminative. As camphorated iunctus or syrup or camphorated tincture of opium, it is employed as an expectorant in cough, and as spirit of camphor or camphor water it is taken to relieve griping. The external application of camphorated oil to the chest walls of children was much favoured in bygone days. Poisoning by camphor usually occurs from the administration of camphorated oil to children in mistake for castor oil. The symptoms are nausea, vomiting, colic, dizziness, delirium, epileptiform convulsions and paralysis. Breathing is difficult, and the breath has a characteristic odour; anuria is common. Martindale states that death is rare and that although fatalities have been recorded from doses of one gramme, other children have survived as much as five grammes.

An interesting case of camphor poisoning has recently been reported by A. G. Smith and G. Margolis.¹ The patient was a nineteen-months-old male infant who swallowed a teaspoonful of camphorated oil from a liniment bottle. He vomited within a few minutes, but remained otherwise asymptomatic until the onset of salivation and rigidity three hours later. After a stormy clinical course, the child died five days after taking the camphorated oil. Post-mortem examination of the brain revealed it to be swollen and soft. It weighed 350 grammes more than the usual weight. Microscopic examination disclosed extensive degenerative changes, selectively involving neurons and sparing glial and vascular structures. The changes were found diffusely distributed in the cerebral cortex and in the basal ganglia and were most severe in the hippocampus, where virtually every pyramidal cell was necrotic. The authors point out that since symptoms referable to the central nervous system have dominated the clinical picture in previous cases of camphor poisoning, the finding of cerebral anatomical changes in their case was not unexpected. They think that the lack of human necropsy data accounts for the lack of previous descriptions of the

brain lesions described by them. The authors discuss at some length the pharmacological and biochemical actions of camphor, and they report the results of experiments made by them in relation to barbiturates and camphor. They report experiments on mice which show the abolition of convulsions by barbiturates and demonstrate their therapeutic value. Their findings are described by them as the in-vivo counterpart to in-vitro studies which demonstrate barbiturate inhibition of oxidation on brain substrates. Studies of the mice show that the prevention of convulsions by barbiturates also protected the animals against neuronal damage. They point out that in their fatal case the administration of barbiturates suppressed convulsions. They therefore conclude that the use of barbiturates in the treatment of patients with camphor poisoning is therapeutically sound.

THE TREATMENT OF TETANUS.

THE treatment of tetanus has undergone great changes in the last few years, with an unquestionable improvement in the prognosis. The essential aspects of the modern approach were set out in an article published in this journal last year by E. G. Saint, R. A. Joske and J. L. Stubbe.² In this article it was pointed out that treatment in all but the mildest cases of tetanus consists of an integrated therapeutic attack designed to keep the patient alive while the effects of the toxin wear off. Considerations of the highest importance are the neutralization of toxin, suppression of exhausting spasms, prevention of bronchopneumonia and the maintenance of an optimal state of nutrition. Saint, Joske and Stubbe recommended the following measures: (i) At least 250,000 units of antitoxin should be given on the patient's admission to hospital, half of this by the intravenous route. (ii) Early tracheotomy should be performed as a routine measure. (iii) Five hundred thousand units of penicillin and 0.5 gramme of streptomycin should be given every six hours. (iv) If a demonstrable wound is present, early wide excision should be carried out. (v) Continuous intragastric feeding should be instituted through a Rehmann tube. (vi) Continuous administration of "Flaxedil" should be carried out by the intravenous drip method. (vii) Minimal sedation with short-acting barbiturates such as "Pentothal" should be used. Continued use may need to be made of both the tracheotomy tube and the "Flaxedil" for several weeks. Not all of these points of management are, of course, new, but current opinion seems to lay particular stress on the use of tracheotomy and of relaxant drugs. This view comes out in an interesting article from Copenhagen by H. C. A. Lassen, M. Bjørneboe, B. Ibsen and F. Neukirch.³ These investigators have been impressed with the value of tracheotomy and positive pressure ventilation during a poliomyelitis epidemic in Copenhagen in 1952 and realized its applicability to severe cases of tetanus in which the patient was paralysed with curare or placed under long-continued general anaesthesia with nitrous oxide and oxygen. They report the results of treatment of four patients suffering from severe tetanus. Three of the patients recovered completely, one after being under complete general anaesthesia for seventeen days. One patient died of myocarditis, granulocytopenia and refractory septicæmia after the disappearance of all symptoms of tetanus, and the article contains a very human commentary on the reaction of Lassen and his colleagues to the results of their treatment. They state that when the first patient had been successfully brought through his severe attack of tetanus, which undoubtedly would have killed him if treated along the conventional lines, they felt quite optimistic. The outcome seemed to prove tetanus to be a self-limited bacterial intoxication which did not injure the central nervous system irreparably once the patient could be tided over the immediate risk of suffocating through failure of respiration. When their second patient recovered, they were inclined to think

¹ *Am. J. Path.*, September-October, 1954.

² *M. J. AUSTRALIA*, March 14, 1953.

³ *Lancet*, November 20, 1954.

that curarization, tracheotomy, controlled ventilation and general nitrous oxide and oxygen anaesthesia could cure the severest case of tetanus; but the third case showed that they had been too confident, for, although the tetanus was cured, the patient died of myocarditis, granulocytopenia and refractory septicæmia. Fortunately the fourth patient, whose condition was of unquestionable severity, recovered.

What actually happened in the fatal case is not quite clear. As Lassen and his colleagues point out, the complications of protracted severe tetanus are little known. Formerly such patients did not recover, but died before the manifestation of late symptoms caused outside the central nervous system by the toxins produced by the tetanus bacilli. Moreover, they suggest that secondary infection and harmful side effects from the many powerful drugs used in high dosage during the long days of treatment must bear their share of responsibility causing complications. It must be noted that it was not only in the fatal case that complications occurred. Two patients developed myocarditis and two developed granulocytopenia with thrombocytopenia. In one case the blood changes were transient; in the other they lasted till the end. The septicæmia in the fatal case was resistant to all known antibiotics and was considered as being probably the immediate cause of death. Lassen *et alii* state that, of these dangerous complications, it seems plausible to attribute myocardial damage to the tetanus, but naturally the severe infection of the upper respiratory tract in all these patients also might damage the myocardium. Bone marrow depression, with leucopenia, thrombocytopenia and arrested erythropoiesis might also be a sequel to protracted intoxication with the toxins produced by the tetanus bacilli. However, such a specific effect of tetanus toxin is apparently unknown. On the other hand, one cannot be sure that the bone marrow depression was not an allergic reaction to one or other of the drugs used. In this respect, pentobarbitone, phenobarbital and perhaps chloral hydrate might be incriminated. The septicæmia in the fatal case is thought probably to have developed because the granulocytopenia lowered the patient's resistance to infection of the upper respiratory tract.

THE PROPAGATION OF RUBELLA VIRUS IN TISSUE CULTURE.

ANOTHER important contribution to medical science, and in particular to virology, has come from the Walter and Eliza Hall Institute of Medical Research in Melbourne in the form of a preliminary communication by S. G. Anderson relating to the propagation of rubella virus in tissue culture.¹ Anderson reports results which appear to indicate that rubella virus can multiply and produce lesions in tissue cultures of monkey kidney and human embryonic tissues. The particular significance of this report lies in the fact that, as Anderson points out, no satisfactory means for the experimental study of rubella has yet been described. The present study began in August, 1952, when throat washings were taken from a patient who, in the view of three experienced clinicians, had rubella. The washings were taken in normal saline eighteen hours after the onset of the rash, mixed with beef infusion broth and stored at -70° C. This was thawed during 1954 and used to initiate the present series of cultures. Anderson describes in some detail the tissue culture techniques used. He goes on to explain that uninoculated tissue cultures of monkey kidney, as examined in his laboratory, consist of polygonal cells lying contiguously in the sheet. Most of the cells are uniformly small, but a few are larger, reaching a maximum diameter about four times that of the small cell. In cultures stained with hæmatoxylin and eosin at eighteen days there are occasional multinucleate areas, generally near the original explant or at the periphery of the outgrowth. The number of such areas with five or more nuclei has never been

greater, in any one tube, than an average of 3.5 per patch of outgrowth. In the case under consideration, inoculated cultures of monkey kidney were first noted to be abnormal in the fifth passage of the throat washings. Similar abnormal appearances have been seen up to the present ninth passage. Five days after inoculation of the fifth passage an increase was observed in the number of multinucleate areas over the number present in control tubes. Eleven days after inoculation each tube carried an average of between 15 and 100 multinucleate areas per sheet of outgrowth. The proportion of large mononucleate cells was considerably increased. The cytoplasm of both types of cell frequently appeared abnormal, presenting a structureless "smeared" appearance. Nothing suggesting an intranuclear inclusion was seen. The cultures of human embryonic lung and of pooled human embryonic tissue were inoculated with supernatants from the fifth monkey-kidney passage of the throat washings. Inoculated tubes developed numerous multinucleate cells, but such cells could not be found in control tubes. Examination of the same fifth passage material failed to reveal the presence of any other infective agent. For practical purposes, the working rule was adopted that if in any tube the number of multinucleate areas exceeded an average of five per outgrowth this tube had been infected by the virus. Experiments were then carried out to titrate the virus and to determine whether the virus would be specifically neutralized by serum from a patient convalescing from experimentally induced rubella. The results set out in the report indicate that the transmissible agent in the cultures was inactivated by convalescent serum from such a patient, but not by pre-infection serum from the same person. Moreover, in a single experiment it was found that the virus was not inactivated by undiluted convalescent serum from a patient who had recently suffered a typical attack of measles (morbilli).

Anderson raises two points which call for mention: first, the resemblance of the lesions to those observed in cultures of measles virus in similar tissues by other workers, and second, the presence of small numbers of multinucleate areas in control cultures. All the clinical and epidemiological evidence, as well as a comparative examination of the tissue culture lesions, suggests that both the patient from whom the initial virus material was obtained and the patient who provided the two samples of serum for the neutralization experiment suffered from typical rubella. Anderson states that it has so far proved impossible to differentiate the multinucleate areas found in small numbers in control tubes from the numerous areas that are characteristic of what are regarded as typically infected cultures. It is a reasonable hope that further experience will allow a clear differentiation, but at present the results are based on quantitative rather than qualitative assessment of the lesions. In any investigation of this sort, as Anderson points out, there must always be an initial period during which the possibility of unrecognized technical or logical fallacy cannot be confidently excluded. Subject to this inevitable qualification, it is believed that these experiments establish a case for the growth of rubella virus in tissue cultures.

CHROMATOGRAPHY.

A SPECIAL ISSUE of the *British Medical Bulletin* (Number 3, 1954) has been devoted to the subject of chromatography, to show its scope and the ways in which it may be of service to medicine directly and indirectly. Dr. A. J. P. Martin in the introduction states that its methods can be applied to almost all classes of substances with which biochemistry is concerned. There are sixteen articles by well-known authorities, the first by R. J. P. Williams dealing with the general principles of chromatography. Martin thinks that chromatography may ultimately play some part in the conversion of medicine from an art to a science. Be that as it may, this special production is worthy of attention.

¹ *Lancet*, November 27, 1954.

Abstracts from Medical Literature.

MEDICINE.

Atherosclerosis.

WILLIAM DOCK (*Canad. M.A.J.*, October, 1953) discusses atherosclerosis and poses the question whether the condition is inevitable or controllable. He states that this condition, in North Americans, begins in early infancy, and the rate of lipid deposition shows three peaks, the highest in the first year of life, with lower peaks in early adolescence and early middle age. The process depends on inability of most human beings to deal with the modern diet of high fat and high cholesterol content. In animals, very rapid atherosclerosis can be produced by high cholesterol intake; and diets of high fat content or fattening on carbohydrate has not been shown to lead to atherosclerosis in men or animals on diets of low cholesterol content but with good protein content. Men with coronary disease early in life are no more obese than controls still free of symptoms. Cholesterol reabsorption can be blocked by other sterols, which in themselves are not absorbed; and this suggests the possibility of control by dietary supplement rather than restriction. At present, a diet of low fat, low cholesterol content is reasonable for those with precocious onset of atherosclerosis, but the protein content should be liberal. Heparin, in subcutaneous doses, and oestrogen-androgen mixtures, given so as to avoid feminization, also produce a more normal pattern of plasma lipids without much effect on total plasma cholesterol levels. These types of parental therapy are not applicable to control of a disorder affecting most of the population; but if cholesterol excess proves to be the cause and can be controlled by supplements to the diet, the chief mode of death in North America may be brought under control. Should it be proved that man, unlike other animals, is unaffected by excess cholesterol feeding, and his vascular disease is a result of the excess fat, the outlook for control is bleak. This would involve a change in diet from early childhood on, which the population would never accept.

Controversial Thyroid Conditions.

CLAUDE J. HUNT (*J.A.M.A.*, May 1, 1954) states that through the investigative trends of the diversified groups that comprise the American Goitre Association, controversial approaches to some phases of thyroid disease have been advanced. Three controversial approaches that pertain to the treatment of thyroid disease are the treatment of hyperthyroidism, the incidence and management of cancer in nodular goitre and some technical phases of thyroid surgery. The merits of surgery of exophthalmic goitre versus radioactive iodine appear to be about comparable to each other. Radioactive iodine presents none of the potentials for tragedy that are occasionally encountered in surgery of the thyroid. Surgery, however, largely removes the potential of future cancer, while radio-

active iodine does not. To date, no cancer has developed because of use of this isotope. Radioactive iodine has not been effective in the treatment of cancer of the thyroid. The uptake of iodine is very poor and it is chiefly confined to the uninvolved portion of the gland. It is more effective in metastatic cancer of the thyroid after total thyroidectomy, and its usefulness is further augmented if the isotope is preceded by administration of a thiouracil compound after total ablation of the primary lesion. The incidence of nodular goitre and its relation to malignant change seem to vary geographically, but the incidence is so high that the surgical removal of all nodular thyroid masses is advised. Technical problems relative to the extent of surgery to be performed for cancer of the thyroid are likewise controversial. In general, this cancer should be approached as cancer elsewhere, and the gland-bearing tissue should be removed. The prognosis often is favourable, especially if the lesion is of a low grade and no extension has occurred. Aberrant thyroid tissue may be of embryological origin, but such cases are rare. The malignant condition is usually primary in the thyroid gland.

Refrigeration and Rewarming.

A. A. JUVENELLE *et alii* (*Am. Heart J.*, May, 1954) in attempts to develop safe methods of intracardiac surgery, have conducted experiments with numerous dogs by refrigeration to levels ranging from 12° to 16° C. and replacing the circulation by a simple perfusion method. Ventricular fibrillation continued for upwards of three hours in some of the experiments, after which defibrillation was effected through the unopened chest, and the animal returned to normal life. The rewarming process was found to constitute a dangerous hazard, and cautious rewarming, not necessarily complete at first, was found advisable to avoid recurrence of cardiac fibrillation or acute heart failure.

Atherosclerosis and Impaired Fat Tolerance.

A. WOLDOW *et alii* (*Am. Heart J.*, April, 1954) have found greater and more prolonged lipemia after a fat meal in subjects with coronary arterial disease than in normal controls. They also found that the intravenous injection of heparin accelerates the clearing of the lipemia in normal subjects and initiates the process in those with coronary arterial disease. The authors suggest that the decline in γ globulin concentration in the plasma after the administration of heparin may indicate that a globulin-heparin reaction occurs simultaneously with the clearing of lipemia, and that globulin plays a part in maintaining normal physical and chemical distribution of neutral fats. The average age of the normal subjects of their experiments was considerably younger than that of the subjects of coronary arterial disease.

Massive Inversion of the T Wave.

T. L. IYFOLITO *et alii* (*Am. Heart J.*, July, 1954) conclude from a study of three cases in which electrocardiography showed massive inversion of the T wave that the prerequisites for this phenomenon

are the presence of coronary arterial insufficiency and a slow ventricular rate. They think it possible that the repolarization of a locally damaged heart may be delayed if the intraventricular volume is increased by prolongation of diastole and the intraventricular pressure built up. In their cases prolongation of the Q-T interval accompanied the greatly increased amplitude of the T wave.

Optic Neuritis in Relation to Demyelinating Diseases.

ABRAHAM SCHLOSSMAN AND CARLTON C. PHILLIPS (*Am. J. Ophth.*, April, 1954) reviewed 72 cases of optic neuritis. Visual disturbance was the initial symptom in 17 cases, and visual defect commenced after multiple sclerosis had been diagnosed in 19 others. Loss of vision in both eyes occurred in 17 cases. Among patients with multiple sclerosis the authors found seven with oedema of the nerve head, and the oedema was of low degree. There was a group of patients who did not report any visual defect and in whom there were signs of optic neuritis. These patients had enlarged blind spots, paracentral scotomata or partial nerve fibre bundle defects which spared fixation. In the group reviewed there were seven patients with retrobulbar neuritis in whom the disease was not due to multiple sclerosis.

Methimazole ("Tapazole").

G. S. ACCETTA *et alii* (*J.A.M.A.*, May 15, 1954) discuss the toxicity of methimazole ("Tapazole") or 1-methyl-2-mercaptimidazole. This is a new antithyroid drug, which has been said to induce skin rashes, agranulocytosis, arthritis and toxic hepatitis. The authors report a case in which a man diagnosed as suffering from hyperthyroidism, with a basal metabolic rate of plus 70%, developed weakness in the legs, loss of knee and ankle jerks and foot drop during treatment with "Tapazole" in doses of 20 to 30 milligrammes daily for forty days in all. They state that the condition may have been due to the drug. The patient's condition improved on discontinuing the drug.

Guillain-Barré Syndrome.

H. GRANT AND H. N. LEOPOLD (*J.A.M.A.*, May 15, 1954) describe a case of the Guillain-Barré syndrome occurring during cortisone therapy. They state that it has been said that the Guillain-Barré syndrome is due to a virus or to hypersensitivity. Patients have been treated with cortisone or ACTH with apparently good response. This suggested that allergy was the basis of the condition. The case reported was that of a thirty-two-year-old woman who was being treated for chronic rheumatoid arthritis of several years' standing. Cortisone, 100 milligrammes daily by mouth as the usual dose, was given over a period of three years. The patient developed nausea, vomiting, diarrhoea and fever. Three days later she lost the use of her legs. She had moon face and acne. She could not move her legs, and her arms were weak. The deep reflexes were absent. Investigations sustained a diagnosis of Guillain-Barré syndrome. Cortisone therapy was stopped for a week

with no benefit; then it was resumed and the dosage was eventually changed to 60 milligrammes of hydrocortisone given daily. The patient recovered.

Hemolytic Anæmia.

L. M. MEYER AND N. D. RITZ (*J.A.M.A.*, June 19, 1954) describe the use of corticotropin (ACTH) for idiopathic acquired hemolytic anemia. They state that ACTH appears to have been more effective than cortisone. In one relapsing case, when ACTH was substituted for 200 milligrammes of cortisone daily, the patient improved. A case is reported in which the hemoglobin value was seven grammes per centum, a Coombs test result was strongly positive and the red cells showed increased fragility in hypotonic saline. Hemolytic anemia was diagnosed on these and other criteria. The patient did not respond to transfusion or to cortisone therapy. Administration of ACTH, 20 milligrammes every six hours given intramuscularly, followed by 40 units of the gel form daily for ten days, was followed by improvement and good health with normal blood counts for eight months. The Coombs test result was still faintly positive. Another case is recorded in which there was no response to cortisone before or after splenectomy.

Oral Hypersensitization.

B. BROCKMAN AND H. K. ROY (*Canad. M.A.J.*, July, 1954) discuss oral hypersensitization by oleoresin extracts. They state that contact dermatitis from plant oleoresins may be treated by oral ingestion of the causative plant oleoresins. Ragweed dermatitis and poison ivy sensitivity may be treated in this way. A series of patients were tested by the open patch test, oleoresin diluted in 10 parts of acetone being used. Whether they reacted or not, the patients were given treatment with oleoresin (specific to the affecting plant) diluted in corn oil. They ingested capsules of these substances, in a dosage of one or more drops a day, increasing by one or more drops a week. Nine out of 14 patients reported improvement over a period of one or two years. Complications included pruritus ani, skin eruptions and urticaria.

Vitamins.

P. WILLIAMSON (*Canad. M.A.J.*, July, 1954) discusses the use of vitamins. He estimates that the indications for the use of a specific vitamin for treatment are probably present in about 1% of cases in which vitamins are prescribed. He advocates a careful scientific evaluation of the need for vitamin treatment. In turn, he discusses vitamin A, thiamine, riboflavin, niacin, ascorbic acid, vitamin D and other vitamins. He points out the signs and symptoms which indicate a deficiency of each vitamin. Further, he states that if deficiency of a certain vitamin is proved by analysis, diet, not pills, is the correct treatment.

Gastro-Intestinal Hemorrhage.

C. S. JUDD AND R. L. HILL (*J.A.M.A.*, July 31, 1954) discuss the management of massive gastro-intestinal hemorrhage. They state that the history and results of stool examination are important.

Sedatives are given and a transfusion of low titre type O blood is started; after typing, four to six pints of blood are given. A Foley catheter is inserted into the bladder, and the hourly output of urine is measured. Conservative management usually carries the patient through till he is fit for diagnostic procedures. The common causes are peptic ulcer, oesophageal varices and tumour of stomach or duodenum. Tumours of the bowel, ulcerative colitis and diverticulitis must be borne in mind. X-ray examination of the gastro-intestinal tract should be carried out as soon as the patient can tolerate it. A blood count may reveal a blood dyscrasia. Operation is suggested for patients over forty-five years of age. Nine cases are recorded. Gastric or duodenal ulcer and carcinoma were the lesions recorded.

Blood Pressure at the Ankle.

A. J. WEISS (*J.A.M.A.*, August 7, 1954) has recorded a method of determining blood pressure at the ankle. The sphygmomanometer cuff was applied round the ankle, with the bag on the anterior medial aspect of the leg, above the ankle. The blood pressure was determined by the usual palpatory method. In 94 out of 100 patients, the blood pressure at the ankle was within 15 millimetres of mercury of the systolic pressure found by auscultation of the brachial artery. The blood pressure found by auscultation over the popliteal artery was 15 millimetres of mercury greater than that obtained at the ankle, and 10 millimetres greater than the blood pressure in the arm. The blood pressure found by auscultation over the *dorsalis pedis* artery was 170 millimetres of mercury, systolic, and 120 millimetres, diastolic, on the average. In the arm, the blood pressure was six millimetres higher. In the thigh, the blood pressure was 10 millimetres less than in the arm.

Liver Function and other Blood Chemistry Tests in Multiple Sclerosis.

NORMAN B. DOBIN AND JOHN L. SWITZER (*Arch. Neurol. & Psychiat.*, April, 1954) discuss 58 patients with multiple sclerosis who were each examined for evidence of liver dysfunction by a battery of 27 chemical hepatic function tests. Test results which have been reported to have a significant statistical association with liver cell damage did not occur in statistically significant numbers in this group of patients.

Long-Acting Penicillin.

J. R. HANKINS AND G. H. YEAGER (*J.A.M.A.*, August 7, 1954) describe the use of a new long-acting penicillin compound in surgical infections. Penicillin in oil and beeswax, and procaine penicillin G in oil and in water maintained fairly effective blood levels for twenty-four hours with a single 300,000 unit injection. A new insoluble salt, N,N'-dibenzylethylenediamine dipenicillin G (benzathine penicillin G) is considerably more insoluble than procaine penicillin. Six hundred thousand units produce more than 0.1 unit per millilitre of serum at twelve hours and maintain a serum level of 0.05 unit per millilitre for five days.

Benzathine penicillin G ("Bicillin 600") has been used in the treatment of hemolytic streptococcal infections and gonorrhoea. Six hundred thousand units of "Bicillin" were given in the treatment of severe infections from burns, compound fractures and the like due to Gram-positive penicillin-susceptible organisms. One dose of this new preparation was as effective in overcoming infection as several daily doses of 600,000 units of procaine penicillin G.

"Butazolidin" for Rheumatoid Spondylitis.

ELAM C. TOONE AND W. ROBERT IRBY (*Ann. Int. Med.*, July, 1954) present an evaluation of "Butazolidin" in the treatment of rheumatoid spondylitis. The report is based upon a study of 50 patients suffering from this disease, and the period of observation was twelve months. The authors state that 27 patients showed major improvement, and 15 were considered failures either because of no response to treatment or because of toxic manifestations of the drug. None of the patients showed a complete remission. Toxic reactions occurred in 17 cases; in three of these it was of a major nature and necessitated discontinuance of the drug. The average dosage schedule was 600 milligrammes given daily by mouth for three days, and a daily maintenance dose of from 100 to 400 milligrammes. It is stated that a favourable therapeutic response, if maintained for two months, will usually continue. Nine special cases are cited in which "Butazolidin" was considered the treatment of choice over X-ray therapy and other available measures. The authors state that final evaluation of the drug as a therapeutic agent will require a longer period of observation. At present, it should be considered more as an adjunct to, than as a replacement of, X-ray therapy.

NEUROLOGY.

Progressive Neuropathic Muscular Atrophy.

A. BRÖDAL, S. BØYESSEN AND A. G. FROVIG (*Arch. Neurol. & Psychiat.*, July, 1953) present a detailed account of 14 patients with the Charcot-Marie-Tooth type of progressive neuropathic muscular atrophy. They discuss the histological findings from 20 muscle biopsy specimens and give the reasons for clinical diagnosis in all cases. Pedigrees of the two families are presented, and the mode of inheritance is indicated. The authors compare their histological findings with those in amyotrophic lateral sclerosis and the other muscular atrophies due to peripheral motor neuron disease, and with the changes occurring in association with peripheral nerve injuries. They conclude that the muscular changes in the disease under consideration are due to disorder of peripheral motor neurons, that the more frequent occurrence of degeneration in muscle fibres in Charcot-Marie-Tooth atrophy is explained by the longer duration of the disease, and that muscle biopsies on patients suspected of having Charcot-Marie-Tooth disease may be of diagnostic value.

Clinico-Pathological Conferences.

A CONFERENCE AT SYDNEY HOSPITAL.

A CLINICO-PATHOLOGICAL CONFERENCE was held at Sydney Hospital on August 17, 1954, the medical superintendent, Dr. NORMAN H. ROSE, in the chair. The principal speaker was Dr. M. F. DECK, an honorary assistant physician on the staff of the hospital.

Clinical History.

The clinical history of the patient was first presented. It was stated that the patient was a fair-haired male who looked very much younger than his stated age of twenty years. He had been a vigorous intelligent youth and had been well during his period of national service training. For the last two years he had lost appetite and had become apathetic and sometimes vomited after meals. His weight had remained constant at eight stone six pounds. He tired easily, and spent a lot of time sleeping. For the last year he had noticed polydipsia and polyuria, drinking copiously every hour and passing urine up to three times at night. His libido had diminished. There were no relevant illnesses in his previous history or in the family history, and there was no mention of psychological or social disturbances which might be concerned with his illness.

On physical examination of the patient, it was found that though pubic hair was present, he had fine facial hair and sparse axillary hair with little hair on the arms and legs. His skin was dry and smooth. His testes were small. There was no abnormality noted in the respiratory, alimentary or central nervous system. The blood pressure was 96 millimetres of mercury, systolic, and 60 millimetres, diastolic. The visual fields were normal, and examination of the fundi showed no abnormality. The urine was tested on two occasions, the specific gravity being 1.003 and 1.005 respectively. No abnormal urinary constituents were present.

A number of special tests were carried out. The result of Thorne's test was taken to indicate an unsatisfactory response of the circulating eosinophile cells to adrenaline, whilst ACTH injections produced a significant drop. The results of a blood count, microscopic examination of urine and X-ray examination of the chest were normal. The skull X-ray examination showed no abnormality; the sella turcica was normal. The total serum cholesterol content was 155 milligrammes per 100 millilitres; the cholesterol ester content was 127 milligrammes per 100 millilitres. The serum sodium content was 389 milligrammes per 100 millilitres (165 milliequivalents per litre). The serum potassium content was 16.2 milligrammes per 100 millilitres (4.5 milliequivalents per litre). The serum chloride content was 395 milligrammes per 100 millilitres (110 milliequivalents per litre). The urinary excretion of 17-ketosteroids was 8.7 milligrammes in twenty-four hours; a repetition of this examination produced a finding of 2.9 milligrammes in twenty-four hours. The glucose tolerance test showed a blood sugar content of 105 milligrammes per 100 millilitres at the end of half an hour, 133 milligrammes after one hour, 125 milligrammes after one and a half hours, 105 milligrammes after two hours, and 110 milligrammes after two and a half hours. Urea clearance was normal. The blood urea content was 13 milligrammes per 100 millilitres, and the blood creatinine content one milligramme per 100 millilitres. The basal metabolic rate was -30%. The results of Wassermann and Kline tests were negative. Examination of the cerebro-spinal fluid revealed normal constituents and dynamics, except for a protein content of 80 milligrammes per 100 millilitres. The electroencephalogram showed no localizing features; there was no evidence of increased intracranial pressure.

Endocrine therapy was instituted with the following substances: "Antulrin S" one millilitre daily, methyl testosterone five milligrammes three times a day, thyroid tablets one-half grain three times a day, and "Primoteston Depot" 250 milligrammes by intramuscular injection. Later the patient was given cortisone in 50 milligramme tablets three times a week.

He improved subjectively, but his weight fell to seven stone one pound in four months. He then again consulted the eye specialist because of diminished vision in the left eye. Examination of the visual fields now showed right upper and lower temporal loss with left lower temporal and nasal loss and a central scotoma. He was found to have bilateral optic atrophy. The electroencephalogram now showed an abnormal record suggestive of a lesion to the right of the mid-line near the basal area. The result of

skull X-ray examination was again normal. A craniotomy was performed, but the patient died shortly afterwards.

Clinical Discussion.

Dr. M. F. DECK: The first thing to mention is that this is a progression of symptoms and signs, and therefore the diagnosis could not be made at the onset of the patient's symptoms. The interesting feature, as has been mentioned, is that it is an endocrine disturbance and that the disturbance affects particularly one gland. This patient was a male, aged twenty years. Apparently he had been well enough to do his national service training, and his intelligence was up to standard. For the last two years, however, certain symptoms had developed. First of all, he lost his appetite and was apathetic, and there was a history of vomiting which occurred mainly in the evening. The important point as far as he was concerned was that he had not lost weight. Then one year prior to admission he had symptoms of excessive thirst, passing large quantities of urine, and his libido had diminished.

In the early stages of this illness the condition known as *anorexia nervosa* must have been considered as a possible diagnosis. Some of the symptoms could fit in with that diagnosis, but as we progress you will see that it would not be possible to retain that diagnosis later on. There was no history of psychological disturbance, and I think that is a very important factor when one considers the diagnosis of *anorexia nervosa*. In cases of *anorexia nervosa* there is always a disturbance of the psyche and a history is never lacking of that disturbance. The loss of appetite, of course, would fit in with *anorexia nervosa*, but the usual story is that there is also a profound loss of weight and patients look older than their stated age, whereas in this particular case he looked younger. Fine downy hair is usually present all over the body in cases of *anorexia nervosa*, whereas there was a diminution of hair in this case particularly on his limbs.

Now we come to the time when he was admitted to hospital, and I think we all agree the signs and symptoms present are those of hypopituitarism. First of all, we have the symptoms of lack of posterior pituitary hormone, which is the antidiuretic hormone, the absence of which is noted by his symptoms of polydipsia and polyuria and a specific gravity of urine constantly low (1.003 to 1.005). The anterior pituitary was also suppressed. He had a diminution, apparently, of his thyrotrophic hormone, as evidenced by a dry smooth skin, and his basal metabolic rate was -30%; also his blood pressure was 96 millimetres of mercury, systolic, and 60 millimetres, diastolic. The gonadotropic hormone apparently was also disturbed, in that he had on examination evidence that the testes were underdeveloped or had shrunk, and also that he had less libido than normal. A third pituitary hormone of the anterior part of the gland, the hormone we now know as ACTH, was also diminished, because the output of 17-ketosteroids was abnormally low. The first figure of 8.7 milligrammes in twenty-four hours is just within normal limits, but the second figure was only 2.9 milligrammes, which is definitely abnormal.

The other hormone of the anterior part of the pituitary which is of importance is the pituitary growth factor. Here we must remember that this man was aged twenty, and therefore most of his epiphyses had fused. Consequently, although the hormone may have been diminished in amount, there was no dwarfism. Another point which suggests a lack of production of adrenal hormones is the sparseness of pubic hair and axillary hair. It is thought that the adrenal hormones, stimulated by the pituitary, have a bearing on the degree of hairiness of the male body. I think it is quite clear that this man is suffering at this stage from hypopituitarism, and other tests which were carried out tend to confirm this. Thorne's test was carried out, and the result suggests that the pituitary was unresponsive to the injected adrenaline. ACTH produced a significant drop in eosinophile cells, showing that the cortex of the adrenal glands was intact and could respond to stimulation.

The figures for serum cholesterol, sodium, potassium and chloride contents were all practically within normal limits. The glucose tolerance test showed a flat curve; the highest reading was 135 milligrammes of sugar per 100 millilitres after one hour. The urea clearance was normal, and the blood urea and creatinine contents were normal, which eliminated chronic nephritis as the cause of the polyuria. We have mentioned the basal metabolic rate. The Wassermann and Kahn test results were negative. The electroencephalogram showed no localizing features, and there was no evidence of increased intracranial pressure. The cerebro-spinal fluid was examined, and apparently normal constituents and dynamics were present except that the protein

content was 80 milligrammes per 100 millilitres, which is definitely above normal.

This man must have been considered to be suffering from primary hypopituitarism because, as you will notice, he was treated as such. Now I think hypopituitarism can be divided into two types, both of which I shall call primary hypopituitarism. The first is the type known as Simmonds's disease, in which there is usually a history of a preceding illness, such as a severe haemorrhage or severe infection, or possibly a thrombosis in the pituitary area. This patient had no history of any of these conditions occurring before his entry into hospital. He was treated with male hormone and thyroid tablets, which, until the availability of cortisone, was the standard treatment for Simmonds's disease or primary hypopituitarism. Apparently cortisone became available, and he was given cortisone 50 milligrammes three times a week. He improved subjectively, but his weight fell by half a stone in four months.

Now the factor that makes me feel that this man did not have Simmonds's disease is the fact that he did not have any preceding history of haemorrhage, infection or thrombosis, and also that he did not respond to treatment by cortisone. So we have to consider other causes of hypopituitarism—either a primary tumour of the pituitary gland itself or an interference between the hypothalamus and the pituitary by some tumour occurring above the pituitary, that is, a suprasellar tumour. We are now at the stage where pituitary tumour must be considered a possibility. After four months of treatment (we do not know whether he was given cortisone all that time or not) he apparently became worse, and he noticed that his eyesight had begun to fall. At that time he was examined by the ophthalmic surgeon, who found that he now had bitemporal hemianopia, and on the left side he had some nasal loss and a central scotoma. He was also found to have bilateral optic atrophy. A further electroencephalogram was taken, which showed that he had some disturbance of the electrical function of his brain, which suggested a lesion to the right of the mid-line near the basal area. The skull X-ray examination result was again normal.

At this point I feel that the diagnosis lies between a chromophobe tumour of the pituitary gland and a suprasellar tumour. Chromophobe tumours are notoriously ones which produce pressure within the pituitary fossa and, therefore, indirectly cause symptoms of hypopituitarism. Against the diagnosis of chromophobe tumour is the fact that throughout his history there was no enlargement of the pituitary fossa. In the later stages of chromophobe tumours, which can grow to a very large size, it is usual to find some enlargement of the pituitary fossa. A suprasellar tumour, therefore, has to be considered as a possible diagnosis, and the commonest suprasellar tumour is a craniopharyngioma. This tumour arises from the tissue about the pituitary fossa, and it interferes with the nerve and vascular supply running between the pituitary gland and the hypothalamus. Now the usual X-ray finding in craniopharyngioma is that there is some calcification in the suprasellar area, and unfortunately we have no evidence of this being present. Other conditions which can cause hypopituitarism are a cyst of Rathke's pouch, a meningioma in the suprasellar area, a glioma of the optic chiasma and finally hydrocephalus from any cause.

If I was asked to make a final diagnosis at this stage, I think the most likely one is craniopharyngioma.

In a moment I would like to call on some of the others in the audience to assist in this diagnosis. I think that the ophthalmic surgeon may be able to help us with some of the eye signs and symptoms, and we will call on the neurosurgeon to give us some further aid. I think also the radiologist may be able to help us a little in this problem of lack of calcification and lack of change in the pituitary fossa itself.

Dr. N. H. ROSE: I think Dr. Deck is going to lean very heavily on the interpretations of some of these special tests, and at the last meeting it was found to be of value if we allowed the speaker to invite various opinions before he finally committed himself. I think there are people here today who are experts in these various tests.

Dr. DECK: Dr. Hill, can we ask you about the eye changes that took place in this particular person?

Dr. B. G. HILL: The most remarkable feature of this case is the late onset and comparatively sudden and extensive loss of visual field. The poor visual acuity renders accurate charting of the field with small isopters impossible; however, the field loss is essentially bitemporal and indicates involvement of the chiasma. Some notes on the pupil reac-

tions and the type of optic atrophy would have been helpful. I recall that when first seen at the eye department some few months previous to the operation, the pupils, though a little larger than average, reacted to light and convergence, and that the optic atrophy when it occurred was of the primary type. Both changes point to direct involvement of the chiasma. As to the nature of the lesion, I would rather leave its elucidation to those more expert than myself. The rapidity of their onset is, to say the very least, startling.

Dr. DECK: Would you say that these signs could have been caused both by a craniopharyngioma and by a chromophobe adenoma of the pituitary?

Dr. HILL: Yes. Sometimes they are associated with swelling of the disk; but in the early stages the only sign is that of bitemporal field loss, which, in the case of the chromophobe adenoma, is sometimes very clear cut.

Dr. DECK: Would somebody like to discuss the changes found in the eosinophile cells after the injection of adrenaline and after the injection of ACTH? Dr. Whyte, would you like to help us?

Dr. H. M. WHYTE: I cannot say very much. The reason why the actual figures were not put in here is probably because they did not look good enough, as is often the case with eosinophile cell counts. This is partly because not enough eosinophile cells are counted. There are so few in the blood that there is a tendency to count too few, and therefore it is easy for counts to be doubled or halved at odd times.

The significance of the tests is also in doubt. Adrenaline is supposed to stimulate the pituitary, which in turn, if functioning, stimulates the adrenal, which then puts out hormones which knock the eosinophile cells out of circulation. But although it was originally thought to be a good and simple test, it has been shown that false positive and negative results occur. Even when the adrenals are not present, the test sometimes suggests that they are working satisfactorily.

The ACTH test is the next step, when we side-step the pituitary altogether and act straight on the adrenal to produce the same effect, and again it is subject to error. The more satisfactory test, apparently, is the more difficult one, when ACTH is administered, probably by drip, over quite a long period, and then not only are the eosinophile cells watched but the ketosteroid output is measured. The urinary excretion of these steroids goes up if the adrenals are capable of being stimulated by the ACTH.

Where the eosinophile cells go when chased by adrenaline or ACTH is not known. Some people claim that they have seen eosinophile cells going into the lung, that is, by counts of blood collected by catheter, and that those eosinophile cells did not come out the other side of the lung—they just disappeared. Anyway, it is a peripheral disappearance and not a suppression of production. It is quite a dramatic and sudden disappearance, which is most evident four hours after the stimulant has been applied.

I think that there is a very real place for these tests, but I would emphasize again that adequate numbers of eosinophile cells have to be counted in the proper fashion.

Dr. DECK: I do not think that this helps us very much in the actual decision as to what this man is suffering from except to confirm that he had some degree of hypopituitarism. I think that at this stage we ought to see the X-ray films, if we could.

Dr. R. JENKIN: A large number of X-ray films were taken of this person over a period of about six months. The plain films show no increase in size of the pituitary fossa, there is no evidence of destruction of the clinoids and no sign of increased intracranial pressure, and the pineal gland is normally placed. A pneumoencephalogram was taken. Unfortunately only the basal cisterns were shown, and they appeared quite normal; the ventricular system was not outlined. I do not know what the significance of the non-filling of the ventricular system is, but it often happens with tumours and sometimes in normal cases.

As I said, this patient's X-ray films extend over a period of six months, and in that time there has been no change in the size of the pituitary fossa such as you would expect with a progressive lesion. That does not exclude adenoma. Nor does the absence of calcification above the fossa necessarily exclude craniopharyngioma—10% of cases show no calcification. Perhaps I might get in early with a provisional diagnosis of this case. . . .

Dr. ROSE: Well, Dr. Jenkin, we do not want to do anything that might swerve Dr. Deck from his chosen diagnosis.

Dr. DECK: Would you point out the pineal gland, Dr. Jenkin? Are there no other questions about the X-ray films?

I think that at this stage I should like to call on the neurosurgeon to ask how he would proceed to make a diagnosis, or complete the diagnosis, prior to craniotomy.

Dr. ROSE: Before Mr. Arthurs discusses this case, would you like to commit yourself to a diagnosis?

Dr. DECK: Yes. Craniopharyngioma.

Mr. G. ARTHURS: There are one or two points about the clinical aspects I would like to remark on. One is that this patient, anatomically, has a lesion of the pituitary-hypothalamic region. That is the anatomical level as you describe. The disorder of function, apart from that, seems to indicate an expanding lesion because there is a progressive loss of vision, a field defect is described later on, and also there is a rise in protein in the cerebro-spinal fluid, which I think is very significant. Now if this were a medical condition like encephalitis or syphilis or something like that, I do not think that there would be that steady march of visual loss and a rise in protein without cells. What may the pathology of this lesion be? A pituitary tumour of the anterior lobe, craniopharyngioma, suprasellar meningioma, glioma of the optic chiasma and optic nerve and the other one you described, any sort of hydrocephalus. Well now, as regards any sort of hydrocephalus, I think there would have been headache in this case, which has not been described. That is a very important point. As regards the ordinary pituitary tumour, the basal cell type of tumour—well, it is very unusual to get a tumour like that without some enlargement of the pituitary fossa; also this patient is a little bit on the young side.

Craniopharyngioma, which seems to be a very reasonable sort of diagnosis here, has one or two points against it. First of all the patient is a little older than the patients in most of the cases I have seen at any rate. It does occur in young adults, but more usually in children between the ages of five and ten years. When you see them at this stage they have optic atrophy, as is described here, and not papilloedema, which you get in children; so that is a point in its favour. Three-quarters of these cases have calcification either above the sella or in the sella. This patient, of course, has not got it. But the thing which I think is against this diagnosis is the fact that there has been no real headache and very little vomiting. And when you get a lesion like this causing pressure there is usually a beaten-out appearance of the skull in adolescents and children and a tendency to separation of the sutures. Even though this chap is twenty, you would still, in most cases, see separation of the sutures.

Glioma of the optic nerve and optic chiasma—well, it occurs usually in young children, and the primary symptom is usually loss of vision, and it does not give any endocrine disturbances. The other diagnosis which I have left till the end is suprasellar meningioma, which I think would fit very well. But there are two things against it. One is that it is extremely rare, and the reason why I know it is rare is that some time ago I was writing a paper on intrasellar-meningioma and every reference I seemed to look up mentioned suprasellar meningiomas as being quite rare lesions.

Nevertheless, it does occur. The other thing against it is the fact that it is unusual to have endocrine disturbances, although you do get hypothalamic disturbances, and here I would say the most significant evidence of endocrine disturbance is the low ketosteroid excretion.

So I think that the most likely lesion here is, as Dr. Deck mentioned, a craniopharyngioma, but I am very open to any other suggestions. As regards further investigation, an encephalogram was taken and has not shown very much. I think in view of that I would proceed to take a ventriculogram, to measure the ventricular pressure and see what was the shape of the ventricles. Then I would proceed straight away to do a craniotomy. I do not think anything would be gained by hesitating.

Dr. ROSE: Thank you, Mr. Arthurs. I believe there are some interesting slides, so the discussion of necessity will have to be rather short. Is there anybody in the audience who would like to comment on the history and hazard a diagnosis? Dr. Noad?

Dr. K. B. NOAD: As I saw this patient in the clinic I am not really free to offer any comments.

Dr. H. S. H. WARDLAW: Regarding the 17-ketosteroids, the range of normality is very wide. For a man of this age the average would be about 12, ranging from about half that to about double that, so that the first figure shown here could be within the normal range. But I should like to point out that in the male the 17-ketosteroids have a dual origin. Most

of them come from the adrenals, but about 30% come from the testes. The second figure for this patient, of course, is low, and it is clear that the adrenals are involved. I should like to refer to the electrolytes. While they are very close to the normal range, some of them are on the high side, which is possibly attributable to dehydration.

Mr. ARTHURS: May I ask what was revealed by the craniotomy?

Dr. ROSE: That is a matter for the committee of management. I do not know whether they are willing to commit themselves.

Dr. B. R. M. HURT: We feel that in this case it was more in the nature of a pre-mortem autopsy. The findings are best given by Dr. Palmer.

Dr. ROSE: We will now ask Dr. Palmer to give us the diagnosis and show us the slides.

Dr. A. A. PALMER: The summary of the post-mortem findings is here for any one who cares for a copy.

Autopsy Report.

The following autopsy report was made available and the slides were shown.

The body was that of a thin, short male five feet five inches tall and weighing only six stone eleven pounds. He appeared younger than his twenty years. The hair in the pubic and facial regions was sparse, while in the axillae it was almost absent. The penis was under-developed.

Thyroid. The thyroid gland was small, but of normal pattern.

Thymus. The thymus was present.

Lungs. Both lungs were similar. They were smaller than normal, having a combined weight of 26 ounces (normal 32 to 45 ounces) and were slightly congested.

Heart. The heart weighed six ounces (normal nine to twelve ounces), but was otherwise normal.

Spleen. The spleen weighed two ounces (normal five to six ounces); the cut surface appeared normal.

Kidneys. The kidneys weighed three ounces (normal five ounces).

Liver. The liver weighed 38 ounces (normal 50 to 60 ounces) and showed only mild fatty change.

Cranial cavity. Underlying an inverted "U"-shaped incision over the left frontal region there was a large, subcutaneous hematoma. A flap of the left frontal bone measuring 7.5 centimetres by 6.0 centimetres, which had been removed at operation, was lying *in situ*.

Brain. The brain weighed 52 ounces (normal 48 to 51 ounces). A section of the left frontal lobe had been removed at operation. The region posterior to the optic chiasma was filled by a soft greyish-white mass of tissue with a well-defined portion projecting anteriorly. The optic chiasma and the beginning of each optic nerve were enlarged. On cutting the brain there was displayed a friable greyish-pink mass of tissue measuring 2.5 centimetres by 1.5 centimetres by 1.0 centimetre which occupied the floor and portion of the wall of the third ventricle and which extended to involve the optic chiasma.

Pituitary gland. The pituitary gland appeared normal.

Testes. Both testes were small but otherwise normal.

Microscopic Examination.

Brain. The tumour closely resembles seminoma both in the appearance of the tumour cells and in the presence of lymphocytes in the stroma. Tumours with this pattern have often been reported in the pineal and occasionally in other parts of the wall of the third ventricle and were formerly thought to be a variety of primary pinealoma, but they are now generally regarded as seminomas of teratomatous origin. The present tumour shows an additional feature linking it with seminomas of other sites in that epithelioid and giant cells are numerous in parts of the stroma.

Pituitary. The growth has largely replaced the posterior lobe, but some well-preserved anterior lobe is present.

Optic chiasma and nerves. These are invaded by the growth.

Pathological Discussion.

Dr. ROSE: I think Dr. Palmer has produced some very good slides. We have two minutes to go. Would anyone else like to throw any further light on the pathological diagnosis.

DR. WHITE: Might I suggest that Dr. Calov should sum up the clinico-pathological findings because he knows the case so well.

DR. W. L. CALOV: This boy came along as an adult, although he looked like a boy of fifteen. He was a little fellow, thin, with a dry skin and pale face, with very small external genitals, no hair on the body, and a thin, weedy voice. He was thin and would not eat, and I regarded the condition as some peculiar disorder in the nature of Simmonds's disease.

Of course, we suspected neoplasm and had certain investigations carried out to prove or disprove this, but none of them suggested he had neoplasm, so we thought it was reasonable to go ahead and give him the hormones which we hoped might do him some good. Well, for a while they did him some good, but in the long run they did him no good at all. In due course he developed bitemporal hemianopia. If this had been present in the first place, we would not have subjected him to all these things, but rather would we have handed him over to the neurosurgeons earlier than was the case.

The interesting thing about this case was that the tumour was not a primary pituitary one, but one which arose in the vicinity of the gland, perhaps a teratomatous growth.

MR. ARTHURS: I should just like to ask a question or two. Was there any hydrocephalus present?

DR. PALMER: No, there was not, so far as the records go.

MR. ARTHURS: Thank you. That probably accounts for the lack of vomiting and headache. Secondly, do you think this tumour might have been radiosensitive? In other words, if we had done a biopsy and come out is it likely he would have benefited by this treatment.

DR. PALMER: I suppose on an analogy with seminoma it would have been radiosensitive.

MR. ARTHURS: If it was a teratoma, do you think by knocking out the seminoma-like cells radiotherapy might have been helpful?

DR. PALMER: In this case we did not find any element other than seminoma. Whether, if it had been more completely sectioned, we might have found other tissues, I do not know.

DR. ROSE: I think this case provided some excellent discussion and it was a well-chosen case. The experts who provided their views are to be congratulated. If you want to hear something that is just as good, come along on the third Tuesday of next month.

Diagnosis.

The diagnosis was seminoma-like tumour of the third ventricle involving the pituitary and optic chiasma.

Out of the Past.

In this column will be published from time to time extracts, taken from medical journals, newspapers, official and historical records, diaries and so on, dealing with events connected with the early medical history of Australia.

MEASLES?¹

To the Editor of *The Australian*.

Sir: In your Australian of today you say the measles exists in Sydney, allow me to correct the error. I believe I have seen as many of the cases called measles as any medical man in Sydney, having seen 11 cases this morning, and allow me to say the disease has as much affinity to measles as the itch has to smallpox or an old woman's corn to a Scirrhus Gland—the disease, to every well informed practitioner must be admitted to have been produced by atmosphere variations. Should any gentleman have a well defined case of measles both myself and the intelligent Bland would be happy to see it, and let the force of argument decide the question on the authorities of Cullen and Willan. I am authorized to say that in the extensive practice of Mr. Surgeon Bland, he has not a single case of measles and he decided in his own cases against this disease, before I had the honor of seeing him on the epidemic now existing in Sydney, or had requested him to see some of my

worst cases, that both might be satisfied not only on the disease but on the mode of treatment. My opinion, backed by Mr. Surgeon Bland's authority, satisfies my mind on the non-existence of measles in the Colony.

Yours, &c.,

31 Pitt Street,
19 December, 1834.

C. SMITH,

Obituary.

SAMUEL RUDOLPH GERSTMAN.

DR. LEONARD MITCHELL has prepared the following appreciation of the late Dr. Samuel Rudolph Gerstman.

S. R. Gerstman was born in Parkville, Victoria, on November 3, 1905. He went to Prince's Hill State School and then on to Scotch College by scholarship. He finished second to the *dix* of that school and gained a senior government scholarship and an exhibition to Ormond College. His medical course was much above the average—he gained the exhibition in natural philosophy in his first year and a resident medical officer's position at the Royal Melbourne Hospital in his final year, 1929. Before taking this position he had some experience as *locum tenens* in general practice.



From the Royal Melbourne Hospital he went as house surgeon to the Children's Hospital, the Women's Hospital, and finally the Eye and Ear Hospital in 1933. Proceeding to London, he passed the final F.R.C.S. examination in 1935 and spent two years as house surgeon at the Royal Eye Hospital. He returned to Melbourne in 1939, commenced private practice and was appointed clinical assistant at the Eye and Ear Hospital and at Royal Melbourne Hospital. His work in both hospitals was immediately recognized as very good.

The outbreak of war saw him enlist in the Australian Imperial Force, and he served as ophthalmologist in military hospitals at Adelaide River (Northern Territory), Perth and Bougainville. After the war he did some useful work on the eyesight of returning prisoners of war from Japan.¹ In

¹ From the original in the Mitchell Library, Sydney.

¹ *Tr. Ophth. Soc. Australia*, 1946, Volume VI.

1946 he was appointed assistant honorary surgeon at the Eye and Ear Hospital, and in 1949 he became honorary ophthalmic surgeon. His wide training and experience had laid the foundations for a splendid practice, which he very quickly acquired, and he earned the lasting affection of his patients and respect of his colleagues.

The Ophthalmological Society of Australia (British Medical Association) had his active support as a State secretary and as chairman of the Visual Hygiene Committee. He served on the Opticians' Registration Board (Victoria). In his own hospital, the Victorian Eye and Ear, he was capable, enthusiastic and thorough in all his work, and loyal to his colleagues and to the highest traditions of his profession.

Apart from his professional work Gerstman was a keen freemason (a past master of Lodge Ambition) and a member of the Melbourne Cricket Club and of the Fitzroy Football Club. A member of the Presbyterian Church, he married Dulcie Allen, of Perth, in 1944. Their short married life was extremely happy. He contracted a very severe form of poliomyelitis, but his heart was not equal to the strain and he died on June 22, 1954.

To his widow and two little sons is extended the sympathy of grateful patients and of a host of friends.

Special Correspondence.

NEW ZEALAND LETTER.

By Our Special Correspondent.

General Election, November, 1954.

THE results of the general election held in November, 1954, gave the National Party a renewed term of office with a reduced majority, the parties now mustering 45 National, Labour 35. Several seats were closely contested. The Social Credit League contested every seat, and though they did not secure one, they polled 10% of the votes and gained very substantial support in some constituencies. The significance of this has been variously attributed to fear of inflation, rise in cost of living or simply to a feeling of "a plague on both your houses". The National Party in particular had a fright and have promised an inquiry into financial matters.

There are five new Cabinet Ministers, mostly young men. The Minister of Health is now the Honourable Ralph Hanan, a barrister and solicitor from Invercargill, and a former mayor of that city. To him will presumably fall the task of reorganizing the hospital system, which has been under discussion for some years and had the deep interest of the Honourable J. R. Marshall, now Attorney-General. His predecessor, in turn, as Minister of Health, the Honourable J. T. Watts, is now Minister of Finance.

Correspondence.

THE HOSPITALS COMMISSION OF NEW SOUTH WALES.

SIR: The extensive programme recently announced by the New South Wales Minister for Health for the construction of new hospitals has been severely criticized by leading hospital administrators. One objection is that it excludes certain long-standing, necessary, urgent and acknowledged commitments to develop important existing institutions. It is asked whether these have been overlooked or repudiated and there has been no answer. On the other hand, in certain localities, people and politicians can scarcely believe their good fortune and are straining every nerve to have it consolidated before the authorities wake up.

It is not my intention to enter the controversy: Sir Herbert Schlink has declared that the Government is following a mistaken policy; Sir Norman Nock has stated that one of the metropolitan teaching hospitals has been dealt a body-blow; and a deputation representing the Faculty of Medicine as well as hospital administrators and employees has protested to the Minister for Health; such criticism must surely shake public confidence in the Government. My purpose is to inquire how such a curious situation could come about.

The Government may well be in a dilemma; for, according to law, the Hospitals Commission of New South Wales and not the Government is the authority finally responsible for sanctioning the establishment of new hospitals, and the Minister is doubtless reluctant to exercise his statutory authority to control and direct the Commission. Those who are interested in the welfare of public hospitals, amongst whom must be the medical profession, would do well to examine the constitution and proceedings of the Hospitals Commission.

There is a weakness, it seems to me, in the constitution of the Commission, which could be conducive to mistakes in Government policy. The Hospitals Commission consists of a chairman, who must be a medical practitioner, and only two other members. For a good many years the chairman has been not only a medical practitioner, but a trained hospital administrator of the highest professional standing. The other two members are laymen. If the chairman (unlikely as it may seem) should ever become possessed of mistaken ideas or should conceive unwise or ill-timed projects, he might easily be able to carry them into effect against the better judgement of his colleagues and even of the Government. On the other hand, errors on the part of the lay members could prevail against the better judgement of the chairman by reason of their majority of votes. Another possibility is that if the chairman should die suddenly or suffer any prolonged incapacity, the lack of his experience and guidance might prove a severe handicap to the Commission, which has to advise the Government on the expenditure of millions of pounds of public money annually.

I suggest, therefore, that the Hospitals Commission ought to be enlarged, by the appointment of a deputy chairman, who should be a medical practitioner and a trained hospital administrator, to share the heavy responsibility now being borne by the chairman.

Yours, etc.,

185 Macquarie Street,
Sydney,
December 4, 1954.

DOUGLAS ANDERSON.

CHANGING SINGLETS IN A PLASTER JACKET.

SIR: In this hot weather it should perhaps be better known that a patient in a plaster jacket can readily change his singlet if two singlets are originally applied (or a thin layer of orthopaedic wool over a single singlet). Tapes are sewn to the bottom of the inner singlet, the shoulder straps cut and stitched to the next singlet, which is pulled through a one-way route as the first is pulled off. The trick earns some gratitude from the encased unfortunate (in this weather).

Yours, etc.,

143 Macquarie Street,
Sydney,
December 2, 1954.

C. C. McKellar.

INDUCTION OF LABOUR.

SIR: "Induction of Labour", by E. Kent-Hughes (M. J. AUSTRALIA, November 13, page 787), has a great deal to commend it, and the reasons given are those which are very important from the fetal point of view in the main, and also from the maternal aspect where, as is stated, women from the country districts are prepared to come into hospital provided something will be done if labour does not eventuate when expected. In this case the frustrated woman has domestic worries added to the obstetrical vagaries.

My reason for writing this letter is twofold.

One is to state that at the Queen Victoria Maternity Hospital we have observed unfortunate results to the fetus in some cases where quinine has been given, and the other is to mention a simple mechanical means of induction of labour.

The methods used mainly in this hospital were rupture of the membranes with a Drew Smythe catheter.

The simplest method that one knows of is that which was introduced to me by Geoffrey Thompson, of Perth, and I have used it extensively in my clinic.

If the cervix is dilated enough to admit one finger, the right index finger is introduced, after the usual cleaning of vulva and vagina, the patient being in the lithotomy position.

The right index finger is swept around inside the cervix and strips off the membranes.

The finger is then directed posteriorly behind the fetal head to guide an ordinary long uterine packing forceps to the membranes in the region of the fetal neck.

The packing forceps about twelve inches long are held in the left hand and have the closed points thrust through the membranes guided by the right index finger. They are then opened and liquor amnii runs out.

This method still leaves a hydrostatic dilator, and we have found it to give excellent results.

No anæsthetic is required, but the patient is asked to cooperate and to put up with the discomfort for a few minutes.

The part which appears to disturb the patient most is cleaning up the vulva and vagina.

We usually introduce a Sims speculum and run "Dettol Cream" into the vagina; it has been found that "Dettol Cream" acts as a good lubricant and it also produces a relatively aseptic area.

Yours, etc.,

R. F. MATTERS.

63 Palmer Place,
North Adelaide,
South Australia.
November 26, 1954.

SOME CURRENT ANÆSTHETIC PROBLEMS.

SIR: The Embley Memorial Lecture by G. R. Troup (M. J. AUSTRALIA, November 27, 1954) is most interesting and, at the same time, somewhat disturbing. On the one hand it tells of certain advances in anæsthesia and on the other points out difficulties that prevent our taking full advantage of the new knowledge.

Dr. Troup says: "In the 'rag and bottle era' when drugs were limited and techniques simple, the problem of teaching was comparatively simple. Those days have gone. . ."

There are three aspects of the problem on which I should like to hear Dr. Troup's comments. Firstly, what type of

anæsthesia would he recommend for those practitioners in outback areas thrown on their own resources single-handed? Secondly, what type of anæsthesia would he recommend for those "family doctors" who provide anæsthesia for the surgical service rendered in everyday practice? Thirdly, regarding the question of specialty anæsthesia, two questions that have a bearing on the problem of teaching are: (i) How much anæsthetic teaching is to be provided in the undergraduate course? (ii) How much teaching is necessary to enable senior resident medical officers to master the new techniques of anæsthesia, who is to provide the instruction, and how is the instruction to be paid for?

During the first World War, the Spanish Civil War, the second World War and the Korean War many discoveries were made in problems of respiration, circulation, renal excretion, biochemistry, blood transfusion *et cetera*, and as a result over the years, there have come into being practitioners of two types—one, experts in anæsthesia, and the other, experts in resuscitation. For the successful practice of both a higher degree of skill in the science and art of medicine is required; both have much in common.

One therefore agrees in the main with Dr. Troup when he says: "There is a greater need for teaching than research." At the same time it must be remembered that those who did the research made specialist practice of anæsthesia and resuscitation possible.

I should like to know how Dr. Troup considers the practice of specialist anæsthesia should be developed, keeping in mind the various aspects of the problem, such as the place where the anæsthesia can be readily carried out, the economics of the problem *et cetera*.

We should keep in mind the following remarks in "Current Comment" in THE MEDICAL JOURNAL OF AUSTRALIA of November 6, 1954, in a survey conducted from the study of 600,000 cases by the Harvard Medical School at the Massachusetts General Hospital. Beecher and Todd suggest that the practice of anæsthesia is as yet far from achieving stability. They say: "There are plenty of avenues opened in this study along which research might be properly conducted." It is also stated: "Anæsthesia kills several times

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED NOVEMBER 27, 1954.¹

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Australia.
Acute Rheumatism	4(1)	3(2)	5(3)	..	1(1)	..	..	..	13
Anthrax .. ..	..	..	..	..	..	..	..	..	..
Ancylostomiasis	7	..	..	..	..	..	..	..	7
Ascariasis .. ..	..	..	..	..	..	..	..	..	..
Bilharziasis .. ..	..	..	..	..	..	..	..	..	..
Brucellosis .. ..	..	..	..	..	..	..	..	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..
Chorea (St. Vitus) .. ..	..	..	..	..	..	..	..	..	..
Dengue .. ..	..	..	..	..	..	..	..	..	..
Diarrhoea (Infantile)	4(1)	15(12)	7(6)	..	..	1	..	..	27
Diphtheria	6(2)	2(1)	1	..	..	1(1)	..	..	10
Dysentery (Bacillary) .. ..	..	1(1)	5(5)	..	..	..	..	..	6
Encephalitis .. ..	..	..	..	1	..	..	..	..	1
Filariasis .. ..	..	..	..	..	..	..	..	..	..
Homologous Serum Jaundice .. ..	..	..	..	..	..	..	..	..	..
Hydatid .. ..	..	..	..	..	..	..	..	..	..
Infective Hepatitis	75(22)	38(25)	..	..	6(3)	..	..	2	121
Lead Poisoning .. ..	..	..	3(3)	..	..	..	..	..	3
Leprosy .. ..	..	..	..	..	1	..	..	..	1
Leptospirosis .. ..	..	..	..	..	..	..	..	..	..
Malaria .. ..	..	..	..	..	..	..	..	..	..
Meningococcal Infection	4(3)	2	..	..	1(1)	..	..	..	7
Ophthalmia .. ..	..	..	..	..	..	..	..	..	..
Ornithosis .. ..	..	..	..	..	..	..	..	..	..
Paratyphoid .. ..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..
Poliomyelitis	6(5)	5(3)	2	..	..	..	..	..	13
Pyrexial Fever .. ..	..	14(13)	..	..	20(26)	..	..	..	43
Rubella .. ..	..	..	..	..	..	..	..	..	..
Salmonella Infection .. ..	..	..	3	10(9)	2(1)	..	..	..	66
Scarlet Fever	29(12)	24(17)	..	..	..	..	..	..	..
Smallpox .. ..	..	..	..	..	..	..	..	..	..
Tetanus .. ..	..	1(1)	..	..	5(1)	..	..	..	5
Trachoma .. ..	..	..	..	..	..	..	..	..	..
Trichinosis .. ..	..	..	..	..	..	..	..	..	..
Tuberculosis	20(16)	20(18)	7(5)	5(3)	15(14)	3(1)	5	..	87
Typhoid Fever	1(1)	..	..	..	..	..	..	..	1
Typhus (Flea-, Mite- and Tick-borne) .. ..	..	..	..	..	..	..	..	..	..
Typhus (Louse-borne) .. ..	..	..	..	..	..	..	..	..	..
Yellow Fever .. ..	..	..	..	..	..	..	..	..	..

¹ Figures in parentheses are those for the metropolitan area.

as many citizens each year out of the total population of the United States as poliomyelitis."

Yours, etc.,

E. S. MEYERS.

University of Queensland Medical School,
Brisbane,
December 2, 1954.

TENNIS HEEL.

SIR: Dr. J. Woolnough (M. J. AUSTRALIA, November 27, 1954) describes a neat and efficient method of splinting an inflamed foot affected by "tennis heel". I must, however, decry the use of another pseudonym—"tennis heel"—for a disease process which usually can be shown to have a definite aetiology and pathology, the stress being only a provoking factor, as it is commonly in "tennis elbow". Were this "plantar fasciitis" purely traumatic, it would be found in the heavier and active individuals, particularly if they suffered from a foot abnormality. I have not found this to be so. It is seen rather in the asthenic patient, particularly of the rheumatic diathesis.

It is commonly found in sufferers from Reiter's syndrome. Careful questioning will bring to light a history of urogenital disease, and subsequent examination substantiates this.

The primary condition is a periostitis of the *os calcis*, noted first at the points of stress, where ligamentous and tendinous attachments occur, but later more general changes will be noted. After a time, X-ray examination will show heaping up and irregular calcification at the site of fixation of the plantar fascia and the *tendo Achillis*; later, on the postero-inferior surface of the *os calcis*. Still later, osteophytosis becomes evident on the superior margins of the tarsal joints. The end results are painful spurs and *pes planus* or *cavus* with toe retractions and generally ischemic feet with loss of cushioning fat, which makes the process more disabling.

Early adequate treatment of the uro-genital disease will cause remission of the symptoms. This condition is well recognized (like "tennis elbow"), when established, to be a most difficult malady to treat. It is therefore most important that proper therapy should be initiated before irreversible changes have taken place.

Yours, etc.,

R. G. ROBINSON.

Sydney,
November 29, 1954.

Naval, Military and Air Force.

APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 75, of December 9, 1954.

NAVAL FORCES OF THE COMMONWEALTH.

Permanent Naval Forces of the Commonwealth (Sea-Going Forces).

Appointments.—Henry Macklin Offway Brown and William Aloysius O'Brien are appointed Surgeon Lieutenants (for Short Service) (on probation), dated 20th September, 1954, and 12th October, 1954, respectively.

Leave of Absence without Pay.—Surgeon Lieutenant-Commander (for Short Service) Michael Joseph Lydon is granted leave of absence without pay for the period 10th May, 1954, to 28th September, 1954.

Resignation.—The resignation of Michael Joseph Lydon of his appointment as Surgeon Lieutenant-Commander (for Short Service) is accepted, dated 28th September, 1954.

Citizen Naval Forces of the Commonwealth.

Royal Australian Naval Reserve.

Appointments.—David Robert Holden Kennedy and John Bedlington Jolley are appointed Surgeon Lieutenants, dated 24th August, 1954, and 1st September, 1954, respectively. Lyn Harley Draper Percy is appointed Surgeon Lieutenant, date 19th August, 1954.

AUSTRALIAN MILITARY FORCES.

Reserve Citizen Military Forces.

Royal Australian Army Medical Corps.

3rd Military District.—To be Honorary Captain, 16th August, 1954: William Carr Lawrence.—(Ex. Min. No. 198—Approved 2nd November, 1954.)

Medical Appointments.

The undermentioned have been appointed, pursuant to the provisions of *The Medical Acts, 1935 to 1948*, of Queensland, members of the Medical Board of Queensland: Dr. L. M. McKillop, Dr. H. J. Windsor, Dr. R. G. Quinn, Dr. J. G. Wagner, Dr. F. W. R. Lukin.

Deaths.

THE following death has been announced:

STEVENSON.—Malcolm Keith Stevenson, on December 8, 1954, at Sydney.

Diary for the Month.

JAN. 4.—New South Wales Branch, B.M.A.: Council Quarterly.
JAN. 11.—New South Wales Branch, B.M.A.: Executive and Finance Committee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney): All contract practice appointments in New South Wales.

Queensland Branch (Honorary Secretary, B.M.A. House, 225 Wickham Terrace, Brisbane, B17): Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 80 Brougham Place, North Adelaide): All contract practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205 Saint George's Terrace, Perth): Norseman Hospital; all contract practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

Tasmania: Part-time specialist appointments for the north-west coast of Tasmania.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2-3.)

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